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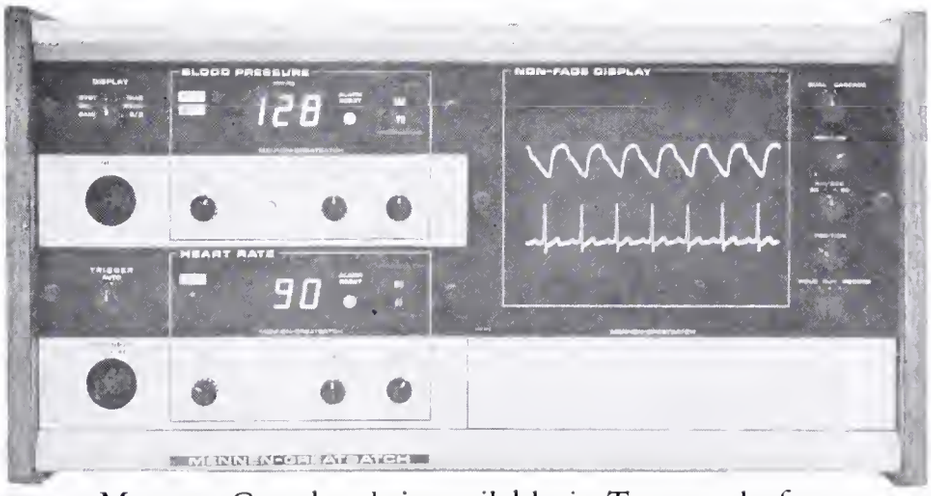

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News in brief

AMA House of Delegates

The AMA House of Delegates considered five Texas resolutions during the 1977 interim meeting of the House Dec 4-7 in Chicago. The AMA House of Delegates reaffirmed continued sponsorship and support for the AMA's proposal for National Health Insurance, HR 1818 and S 218, the Comprehensive Health Insurance Act, now pending before Congress . . . 7

January conference

National Health Insurance, hospital cost containment, access to health care, and professional liability insurance coverage will all highlight the agenda for TMA's Conference on Legislation and Medical Service Jan 21 at the Joe C. Thompson Conference Center in Austin. The conference will include a morning and afternoon program featuring speakers and panel sessions . . . 7

TMA House of Delegates

National Health Insurance proposals, a TMA self-insurance trust, and reorganization of the Texas Medical Association were among numerous issues considered by the TMA House of Delegates Nov 12 and 13 in Austin. In addition, the House of Delegates honored Philip R. Overton, former TMA Legal Counsel, and Dean Page Keeton, chairman of the Texas Medical Professional Liability Study Commission, for their service to Texas physicians . . . 8

Physician extender legislation

The US Congress has passed legislation authorizing Medicare payments for physician assistants and nurse practitioners in rural health clinics. The clinics do not have to be under the direct supervision of physicians, but must have arrangements with one or more physicians for periodic review of services provided by non-physicians . . . 20

News in detail

AMA House of Delegates considers five Texas resolutions

The AMA House of Delegates considered five Texas resolutions during the 1977 interim meeting of the House Dec 4-7 in Chicago.

Eighteen Texas physician delegates and alternates presented testimony before AMA reference committees and spoke on issues during debate on the floor of the AMA House.

The AMA House of Delegates reaffirmed continued sponsorship and support for the AMA's proposal for National Health Insurance, HR 1818 and S 218, the Comprehensive Health Insurance Act, now pending before Congress.

In adopting that position, the AMA House of Delegates turned down resolutions from Texas and other states which expressed opposition to compulsory National Health Insurance in any form.

The AMA House of Delegates did not approve a Texas resolution requesting HEW to eliminate Medicaid regulations requiring the continued stay of patients in the nursing home to be recertified by the attending physician every 60 days.

The Texas resolution had expressed the position that many patients who are long-term residents of nursing homes do not need to be seen by the attending physician every 60 days. However, the AMA reference committee stated the Texas resolution "was not in the best interest of good medical care," since patients in nursing homes should be seen at least every 60 days or even more frequently, if indicated.

The Texas delegation contributed to a resolution adopted by the AMA House of Delegates urging institutions conducting educational programs for physical therapists to seek accreditation from the AMA Committee on Allied Health Education and Accreditation and its Physical Therapy Review Committee.

Another Texas resolution, Payment for Ambulatory Cardiac Rehabilitation by Medicare and Private Health Insurance, was not approved by the House of Delegates. The resolution asked the AMA to urge HEW and private insurance companies to accept cardiac rehabilitation services rendered in the physician's office or clinic as legitimate and needed, and to authorize reimbursement for those services.

At present, Blue Cross-Blue Shield plans, other private insurance companies, and HEW's Bureau of Health Insurance do not recognize or pay for cardiac rehabilitation services rendered in the physician's office or clinic.

The AMA Council on Medical Service pointed out that the Medicare program does not cover all medical and health care expenses. In view of the overall cost of the Medicare program, the AMA Council stated that a degree of selectivity is essential in recommending any expansion of coverage.

The AMA House of Delegates turned down a Texas resolution calling for the AMA to urge HEW's Bureau of Health Insurance to permit hospitals to bill Medicare for social services as a separate item for those patients using the services.

Conference on Legislation and Medical Service is set for January

National Health Insurance, hospital cost containment, access to health care, and professional liability insurance coverage will all highlight the agenda for TMA's Conference on Legislation and Medical Service Jan 21 at the Joe C. Thompson Conference Center in Austin.

The conference will include a morning and afternoon program featuring speakers and panel sessions. TMA committees, boards, and councils will also be meeting Jan 20, 21, and 22.

Speakers and their topics include James N. Sites, Washington, D.C., senior vice president of the National Association of Manufacturers, Washington Harbingers of Future Shock II, and J. Alexander McMahon, Chicago, president, American Hospital Association, The Health Issue of the Day—Hospital Cost Containment.

A More Positive Perspective of National Health Insurance will be presented by James S. Todd, MD, Ridgewood, NJ, a member of the American Medical Association.

Joseph T. Ainsworth, MD, Houston, chairman of the TMA Council on Medical Legislation, will be the moderator for the morning panel session presenting observations and views on National

From left to right, Archie T. Johnson, Jr, MD, member of the AMA Special Ad Hoc Committee on Health Planning; Rep Bill Archer, US Congressman from Houston; J. Alexander McMahon, president of the American Hospital Association; and James S. Todd, MD, member of the American Medical Association, will be featured speakers at the TMA 1978 Conference on Legislation and Medical Service Jan 21 in Austin.

Health Insurance. Participants in the panel session include John C. Gavras, Dallas, executive director of the Dallas Hospital Council; Louie Welch, Houston, president and chief executive officer of the Houston Chamber of Commerce; Truman G. Blocker, Jr, MD, Houston, acting president of The University of Texas Health Science Center at Houston; Joseph M. Merrill, MD, Houston, executive vice president for planning and development of Baylor College of Medicine; and Ronald A. Livingston, MD, Houston, a Houston practicing physician.

Saturday afternoon Rep Bill Archer, Houston, will discuss issues facing the 1978 Congress.

Archie T. Johnson, Jr, MD, Raleigh, NC, a member of the AMA Special Ad Hoc Committee on Health Planning, will discuss medical and political action in 1978.

Clinton S. McGill, Jr, MD, Portland, a member of the AMA Council on Legislation, will discuss enhancing hospital-medical staff relationships.

The second panel session will be moderated by Mylie E. Durham, Jr, MD, Houston, TMA president-elect. Panel participants and their topics include C. Lincoln Williston, Austin, TMA executive director, Priorities for 1978 in Representing Texas Physicians; Edward N. Brandt, Jr, MD, Austin, chairman of the TMA Task Force on Access to Health Care, Access to Health Care; Paul D. Gray, Austin, director of the TMA Department of Medical Service, Highlights of the Survey of Medical Practices of Texas Physicians; Will Barber, Austin, member, TMA Legal Counsel, Current Status of PSRO in Texas; and Milton V. Davis, MD, Dallas, Current Availability of Professional Liability Insurance in Texas and Explorations for a TMA Self-Insurance Trust.

Registrants will be guests of TMA for luncheon; there will also be a cocktail party at the conclusion of the conference.

The conference is open to all members of the Texas Medical Association.

There will be an Orientation Program for new TMA members.

TMA Delegates act on National Health Insurance and other issues

National Health Insurance proposals, a TMA self-insurance trust, and reorganization of the Texas Medical Association were among numerous issues considered by the TMA House of Delegates Nov 12 and 13 in Austin.

In addition, the House of Delegates honored Philip R. Overton, former TMA Legal Counsel, and Dean Page Keeton, chairman of the Texas Medical Professional Liability Study Commission, for their service to Texas medicine.

National Health Insurance

During its seven-hour session Nov 13, the House approved a resolution by the Harris County Medical Society opposing compulsory National Health Insurance (socialized medicine) in any form, specifically opposing S 218 and HR 1818, and directing that no further or-

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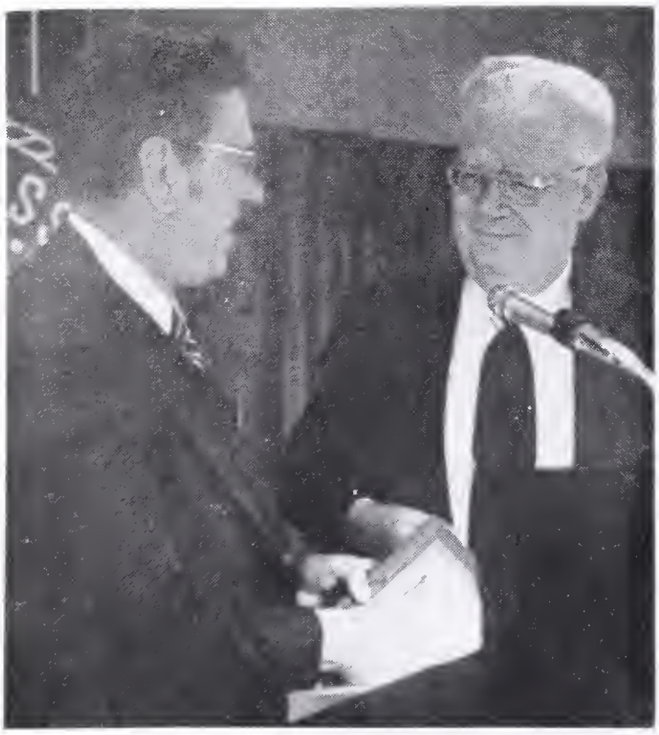

John M Smith, Jr, MD, (left) TMA president, presents an award to Philip R. Overton, former TMA Legal Counsel, for his long years of service to Texas physicians.

ganization dues money may be expended for support of these or similar bills.

Delegates also adopted a resolution by the TMA Council on Medical Legislation reaffirming the sound guiding principles for evaluating National Health Insurance proposals that it first adopted in May 1975 and then reiterated in action in May 1977. The guidelines stress minimum federal involvement in administration of program; state jurisdiction over licensure of physicians and regulation of insurance; and minimum federal dollars in financing of programs for comprehensive coverage at the least possible cost.

The resolution also instructs TMA to make every effort to make citizens aware of the ultimate cost of all NHI proposals. The TMA and the AMA are asked to strive to preserve private, personal medical and health care, and its financing by building upon the existing system of private health.

TMA self-insurance trust

The House of Delegates asked the TMA Board of Trustees to authorize $50,000 in funds over the next six months for a feasibility planning study to consider creation of a TMA self-insurance trust.

The study has been recommended by an ad hoc committee of the TMA Executive Board. Under the self-insurance trust concept authorized by HB 1048 passed by the 65th Session of the Texas Legislature, the trust would not be subject to control or regulation by the State Board of Insurance except to demonstrate that it can meet its financial obligations.

The self-insurance trust could possibly provide basic or excess coverage, provide insurance for defense costs only, act as a broker or agent and place coverage in the private market or the JUA, buy or sell reinsurance, and develop and conduct loss control and risk management programs for trust participants.

The feasibility planning study will include an evaluation of the current professional liability market in Texas, an analysis of what type of insurance vehicle would be most appropriate and of what types and amounts of insurance should be offered, an actuarial analysis of premium rates, capital surplus requirements and risk retention limits, start-up and operational costs, and an investigation of the reinsurance market.

TMA reorganization

The House of Delegates voted to postpone consideration of the Report of the Special Refer-

James Sammons, Jr, (left) a Baylor medical student, and Donald Winston, MD, (center) receive TMA House of Delegates credentials from Bernard Palmer, MD, San Antonio. During the November session, the TMA House of Delegates approved a constitutional amendment providing for delegate representation for the Medical Student Section and the Resident Physicians Section.

ence Committee on Reorganization until the May 1978 Annual Session in San Antonio.

The special reference committee met for more than 12 hours Nov 12 considering the Report of the Executive Board on the Association's Organizational Structure and Function.

National Guidelines for Health Planning

A resolution by the Nacogdoches County Medical Society opposing the proposed rule making on the National Guidelines for Health Planning was approved by the House. The TMA will notify the Department of Health, Education and Welfare of its official position, and will continue to support efforts designed to improve the quality of medical care. All Texas county judges and other proper county officials will be notified of the guidelines and TMA's position.

Cost containment

The Administration's cost containment proposals were considered and the House voted to support the statement by the TMA Committee on Hospitals that the Hospital Cost Control Act is ill-conceived and irresponsible. The committee believes that this legislation will work to the detriment of quality medical care.

The House also supported the Council on Medical Legislation in its opposition to the cost containment legislation because it stifles incentives to modernize equipment and techniques, improve quality of staffs, and increase services; discourages increased access to care; penalizes institutions seeking to respond to increased community health needs; and increases federal control and expenditures in a piecemeal manner.

Countersuit program

Adopted also were organizational principles and operating guidelines for a special committee to review the merits of proposed countersuits against plaintiffs and attorneys involved in unjustified medical malpractice suits. The operating guidelines outline the conditions which must be met prior to review and how the review will be conducted.

According to the organizational guidelines, TMA cannot file countersuits and has no standing in any particular suit; the committee can only advise the physician as to its professional opinion; the physician must give the committee sufficient time to review the proposed suit; and TMA legal counsel can only assist physicians and their attorneys to the limits of the existing arrangements between the Association and the law firm.

Joe Painter, MD, Houston, presents testimony during the hearing of the Special Reference Committee on Reorganization in November.

Laetrile

As it did in May, the House again approved a recommendation that physicians not prescribe or dispense Laetrile for treatment or palliation of cancer.

Computed tomography

An amended policy of TMA on computed tomography was approved by the House. The statement has been forwarded to the Health Facilities Planning Commission and the Texas health systems agencies.

Impaired physician

The primary task of the new TMA Committee on the Impaired Physician is to identify, encourage

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treatment, and review rehabilitation provided to impaired physicians in Texas. One of the most difficult challenges to the committee will be overcoming the reluctance by physicians to identify their colleagues who may have potential impairment or other trouble.

Texas Family Practice Residency Advisory Committee

The House received information that Jack Haley, MD, is the TMA representative to the Texas Family Practice Residency Advisory Committee to the Coordinating Board, Texas College and University System. The 12-member committee will advise on application for approval and funding of family practice residency training programs, and make recommendations on standards and criteria for approval of residency training programs.

The delegates voted to refer a resolution by the Bexar County Medical Society to an ad hoc committee of the Council on Medical Education and Hospitals. The resolution asks that the State of Texas supply funds for Texas primary teaching hospitals.

Continuing medical education

The House received information that the TMA program to accredit continuing medical education programs in Texas organizations and institutions is established as a TMA service. Three institutions have been accredited and other applications are being evaluated.

Dean Page Keeton, (left) chairman of the Texas Medical Professional Liability Study Commission, receives an award for his service to Texas physicians presented by Joe T. Ainsworth, MD, (center) Houston, and Milton V. Davis, MD, Dallas.

Philip R. Overton, former TMA Legal Counsel, visits with Texas Sen Betty Andujar, Fort Worth, after receiving his TMA award.

M. D. Anderson substations

A resolution by the Tarrant County Medical Society requesting a comprehensive statewide study of the feasibility and need of M. D. Anderson Hospital substations within the state prior to the implementation of any such program was approved. The additional fiscal note states that the cost of any feasibility study should be financed by M. D. Anderson or some other appropriate state agency.

JCAH

A resolution by the Brown-Mills-San Saba Counties Medical Society asking TMA to seek to regain control of the Joint Commission on Accreditation of Hospitals or to seek creation of another accrediting agency was referred by the House to the Council on Medical Education and Hospitals. The council was asked to report back to the House in May 1978.

Alcoholism and drug abuse

The House endorsed the Texas Commission on Alcoholism's "Physician's Message Campaign." County medical society officials and specialty society representatives will be sent information

on the campaign, with a request that they develop the community resources list. Cost of sending the information will be approximately $2,900.

Poison control centers

A resolution to support efforts to improve poison control centers in Texas, to encourage an active public and professional poison education program, to commend and appropriately assist the Southeast Texas Poison Control Center, and to urge the Texas Legislature to provide adequate funding for poison control programs was approved.

Physician assistants

The House voted to reaffirm its position that, "the physician's assistant is a skilled person, qualified by academic training in an accredited program and by practical training to provide patient services under the supervision and direction of a licensed physician who is responsible for the performance of the assistant."

The House also voted to support the following statement by the Board of Councilors: "Any nonphysician who assists a physician in a hospital setting should be subject to review by the Credentials Committee and any procedures performed should be in accordance with the law and other limitations imposed by the medical staff."

Fee for expert witness

The House approved an addition to the Code for Physicians and Attorneys stating that, "The physician should discuss payment for his service with the attorney in advance, and it would be appropriate for the arrangement to be predicated on time spent."

Risk control program

A TMA risk control program was approved and referred to the Committee on Professional Insurance for implementation. The program will include a model program for individual hospitals, printed educational material for physicians, and data analysis to identify specific procedures which account for significant numbers of suits.

Unneeded tests escalate hospital care costs

Routine ordering of chest x-rays and electrocardiograms for all patients admitted to the hospital is not necessary and is adding to the escalating cost of medical care, Richard J. Jones, MD, declared in the Dec 12 *Journal of the American Medical Association.*

Dr Jones is director of the AMA's Division of Scientific Activities.

There is little doubt, he says, that the inclination to ever more elaborate testing has been fostered by third-party payment, which insures that neither the patient nor the physician suffers any loss, and perhaps gains a remote benefit from extra testing, Dr Jones says.

The situation is aggravated by the physician's awareness that he may be challenged in a malpractice suit as to why he did not order a certain test, so he may order beyond medical requirements, the AMA executive points out.

"Much could be said about the need for teaching house officers and medical students the importance of economy in the planning of a medical workup and in the administration of treatment."

The house doctors in the hospital order many routine tests because they fear the criticism of the attending physician, who may question why a certain procedure wasn't done.

The routine ordering of tests is part of the reason why hospital costs are increasing so dramatically, says Dr Jones.

"There is no doubt that routine testing does detect some early disease that would otherwise go unrecognized, but whether this prolongs life or even improves the quality of life in a substantial number of patients is the basic question. Should the answer be affirmative, then society will have to decide how many routine, normal tests are worth doing for a predictable reduction in illness and death."

FDA Commissioner finds no big differences between generic and brand drugs

There are no big differences between generic and brand drugs according to the Commissioner of the Food and Drug Administration, Donald Kennedy, PhD. Dr Kennedy told the Senate Monopoly Subcommittee that some of the larger pharmaceutical houses frequently buy products from smaller generic producers and sell them under the larger firm's brand name.

"Drug marketing follows many patterns," Dr Kennedy said. "A formulator may make a product, and sell it only under his own label; he may also have a trade name and a generic line selling it both ways. He may also sell this product to other drug firms; or have them make the product for him. So a formulator may also be a repacker, or an own-label distributor at different times under different circumstances. To give an idea of the number of firms producing drugs, ampicillin, a widely used antibiotic, available under 224 product labels, is produced by only 24 formulators; 219 conjugated estrogen products are produced by 45 manufacturers."

Dr Kennedy said that drug firms frequently lease the facilities of different firms for the manufacture of various products which may still be marketed under a brand name.

The Commissioner told Senator Gaylord Nelson, D-Wis, that evidence from the FDA's 250,000 annual drug inspections shows that "only a small percentage of drugs are not in compliance with compendial or application specifications . . . we also find no evidence of widespread differences between the products or large and small firms or between brand name and generic products."

Carter signs tax law affecting federal scholarships

President Carter has signed into law good news for medical students on federal scholarships. Their stipends will now be freed from federal income taxation.

The exemption applies both to Armed Services health professions scholarships as well as the Public Health Service's National Health Service Corps scholarship program. Some 10,000 medical students get a break as a result.

The exemption had been urged by the AMA and was spearheaded through Congress by Sen Robert Dole, R-Kans, and Rep James Jones, D-Okla. Rep Tim Lee Carter, R-Ky, strongly supported the legislation that was also introduced by Rep Martha Keys, D-Kans.

Federal government urges second opinions on surgery

The federal government plans a major campaign to urge the American public to seek opinions on surgery.

The unusual and precedent-setting program involving patients' dealings with physicians will be conducted by HEW. Both Medicare and Medicaid programs will be geared to encourage second opinions.

The policy was announced by Hale Champion, HEW Under Secretary, before the House Commerce Subcommittee on Oversight and Investigations. The subcommittee, headed by Rep John Moss, D-Calif, held hearings and issued reports in 1978 charging there is much unnecessary surgery in the United States.

"Comparisons with prepaid delivery, geographic variations in rates of surgery, and historical trends all point to the fact that there is more surgery in the United States today than there ought to be," said Champion.

"Accordingly, we are going to begin a major effort to encourage the American public, and especially our own beneficiaries, immediately to seek second opinions," he testified.

The department has been instructed to remove the remaining legal barriers to patient-elected second opinions in Medicare. States will be requested to implement as quickly as possible active second opinion programs for Medicaid.

If two physicians disagree, Medicare will pay for a third opinion if the patient desires one, according to HEW.

At present Medicare will pay for a second surgical opinion if the physician agrees to the advisory or orders it. But the physician's acceptance is at present mandatory. In the future the patient would be reimbursed for a second opinion if the initial physician believes it unnecessary.

One question to be answered is whether the

patient must receive a negative response on a second opinion from the first physician, or simply could go off on his own to get a second opinion without even asking the physician.

Champion also told the Moss Subcommittee he will ask professional standards review organizations (PSROs) "to move aggressively into review of surgical services."

Champion said that with the advice of the National PSRO Council, "We're going to develop criteria for ten of the most common surgical procedures and distribute them to the PSROs by this February." By January 1979, criteria for 75% of the most common surgical procedures within each specialty will be prepared, he said.

"We will do our best to see that these criteria are specific and measurable, and applied without unreasonable modificaton by the local PSROs," the official told the Subcommittee.

Continuing education directory mailed in December

The 1978 Texas Continuing Education Directory for Physicians, listing approximately 200 courses, was mailed to members of the Texas Medical Association in late December.

The directory, the eighth to be published, also contains information on more than 50 courses being presented during the Association's 1978 Annual Session in San Antonio. The first directory, printed in 1971, listed a total of 43 continuing education courses.

Also featured in the directory is a list of scientific meetings scheduled for 1978 in Texas.

The directory was compiled and prepared by the *Texas Medicine* staff as part of the Texas Medical Association's continuing education services approved by the Committee on Continuing Education.

Health planning guidelines are flexible, HEW says

Moving to dampen the public, professional, and congressional outcry over national health planning regulations, the HEW has dispatched a memo to all lawmakers insisting the National Health Planning Guidelines are flexible and won't result in arbitrary facility closings.

More than 20,000 letters have been received by HEW protesting the national planning guidelines setting forth specific performance and operating standards that should be utilized by localities in seeking to trim the cost of health care and eliminate waste.

Both Texas Gov Dolph Briscoe and Lt Gov Bill Hobby have written to President Jimmy Carter and HEW Sec Joseph Califano criticizing the proposed National Health Planning Guidelines.

The guidelines were published in September by HEW to set up national numerical standards for some specialized health services.

Rep Paul Rogers, D-Fla, one of the authors of the planning law, recently said the guidelines will not result in the closing of any facility. Rep Rogers said the guidelines were intended only as a national reference for hospital occupancy rates and not as federal standards that must be adhered to strictly.

Special programs planned for 1978 Annual Session

Twenty-two scientific sections, six TMA committees, and thirty-two specialty and related medical organizations will present programs at the 1978 TMA Annual Session May 11-14 in San Antonio.

Sessions of the TMA House of Delegates, exhibits, and almost all scientific and educational programs, will be scheduled in the San Antonio Convention Center.

Edward Teller, MD, Nobel Prize Winner and a foremost authority on energy, and John Budd, MD, president of the American Medical Association, will address luncheon meetings during the session.

Special conferences and symposia are also planned during the May meeting.

The 1978 Symposium on Aging will be devoted to neurological aspects of aging, with Robert D. Terry, MD, as guest speaker. The Symposium on Cardiovascular Diseases will be devoted to thrombophlebitis, various types of thromboses, pulmonary embolism, various mechanisms in prevention and newer concepts as to platelet adhesiveness, and both the clinical recognition and medical and surgical management of the process.

More than 54 guest speakers are scheduled for the May meeting.

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INDICATION: Contraception [ ]

CONTRAINDICATIONS: Oral contraceptives (OC's) should not be used in women with any of the following conditions:

1 Thrombophlebitis, thromboembolic disorders or conditions which predispose to these disorders. 2. A past history of deep vein thrombophlebitis or thromboembolic disorders. 3 Cerebral vascular or coronary artery disease 4 Known or suspected carcinoma of the breast 5 Known or suspected estrogen-dependent neoplasia 6. Undiagnosed, abnormal genital bleeding 7 Known or suspected pregnancy (see WARNINGS, No. 5).

WARNINGS:

The use of oral contraceptives is associated with increased risk of several serious conditions including thromboembolism, stroke, myocardial infarction, hepatic adenoma, gallbladder disease, and hypertension. Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks.

1. THROMBOEMBOLIC DISORDERS AND OTHER VASCULAR PROBLEMS. An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well established Four principal studies in Great Britain and three in the United States have demonstrated an increased risk of fatal and nonfatal venous thromboembolism and stroke, both hemorrhagic and thrombotic These studies estimate that users of oral contraceptives are 4 to 11 times more likely to develop these diseases without evident cause than are nonusers Overall excess mortality due to pulmonary embolism or stroke is on the order of 1 0 to 3 5 deaths annually per 100,000 users and increases with age In a collaborative American study of cerebrovascular disorders in women with and without predisposing causes, it was estimated that the risk of hemorrhagic stroke was 2 0 times greater in users than in nonusers and the risk of thrombotic stroke was 4 to 9.5 times greater in users than in nonusers [ ] An increased risk of myocardial infarction associated with the use of oral contraceptives has been reported, confirming a previously suspected association These studies, conducted in the United Kingdom, found, as expected, that the greater the number of underlying risk factors for coronary artery disease (cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, history of preeclamptic toxemia), the higher the risk of developing myocardial infarction, regardless of whether the patient was an oral contraceptive user or not. Oral contraceptives, however, were found to be a clear additional risk factor The annual excess case rate (increased risk) of myocardial infarction (fatal and nonfatal) in oral contraceptive users was estimated to be approximately 7 cases per 100,000 women users in the 30-39 age group and 67 cases per 100,000 women users in the 40-44 age group [ ] In an analysis of data derived from several national adverse reaction reporting systems, British investigators concluded that the risk of thromboembolism including coronary thrombosis is directly related to the dose of estrogen used in oral contraceptives Preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism than those containing 50-80 mcg of estrogen Their analysis did suggest, however, that the quantity of estrogen may not be the sole factor involved This finding has been confirmed in the United States. Cases of thromboembolic disease have been reported in women using progestin-only oral contraceptives, and they should not be presumed to be free of excess risk

The risk of thromboembolic and thrombotic disorders, in both users and nonusers of oral contraceptives, increases with age Oral contraceptives are, however, an independent risk factor for these events [ ]

The available data from a variety of sources have been analyzed to estimate the risk of death associated with various methods of contraception. The estimates of risk of death for each method include the combined risk of the contraceptive method (e.g , thromboembolic and thrombotic disease in the case of oral contraceptives) plus the risk attributable to pregnancy or abortion in the event of method failure. This latter risk varies with the effectiveness of the contraceptive method. [ ] The study concluded that the mortality associated with all methods of birth control is low compared to the risk of childbirth, with the exception of oral contraceptives in women over 40, and that the lowest mortality is associated with the condom or diaphragm backed up by early abortion

The risk of thromboembolic and thrombotic disease associated with oral contraceptives increases with age after approximately age 30 and, for myocardial infarction, is further increased by cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, or history of preeclamptic toxemia The risk of myocardial infarction in oral contraceptive users is substantially increased in women age 40 and over, especially those with other risk factors The use of oral contraceptives in women in this age group is not recommended

The physician and the patient should be alert to the earliest manifestations of thromboembolic and thrombotic disorders (e g., thrombophlebitis, pulmonary embolism, cerebrovascular insufficiency, coronary occlusion, retinal thrombosis, and mesenteric thrombosis) Should any of these occur or be suspected, the drug should be discontinued immediately

A four- to six-fold increased risk of post-surgery thromboembolic complications has been reported in oral contraceptive users If feasible, oral contraceptives should be discontinued at least four weeks before surgery [ ]

2. OCULAR LESIONS. There have been reports of neuro-ocular lesions such as optic neuritis or retinal thrombosis associated with the use of oral contraceptives Discontinue oral contraceptive medication if there is unexplained, sudden or gradual, partial or complete loss of vision, sudden onset of proptosis or diplopia, papilledema, or retinal vascular lesions and institute appropriate diagnostic and therapeutic measures.

3 CARCINOMA Long-term continuous administration of either natural or synthetic estrogen in certain animal species increases the frequency of carcinoma of the breast, cervix, vagina, and liver [ ]

In humans, three case control studies have reported an increased risk of endometrial carcinoma associated with the prolonged use of exogenous estrogen in postmenopausal women. One publication reported on the first 21 cases submitted by physicians to a registry of cases of adenocarcinoma of the endometrium in women under 40 on oral contraceptives [ ] One study, however, while also noting no overall increased risk of breast cancer in women treated with oral contraceptives, found an excess risk in subgroups of oral contraceptive users with documented benign breast disease A reduced occurrence of benign breast tumors in users of oral contraceptives has been well-documented

In summary, there is at present no confirmed evidence from human studies of an increased risk of cancer associated with oral contraceptives Close clinical surveillance of all women taking oral contraceptives is, nevertheless, essential In all cases of undiagnosed persistent or recurrent abnormal vaginal bleeding, appropriate diagnostic measures should be taken to rule out malignancy Women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease or abnormal mammograms should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception.

4 HEPATIC ADENOMA Benign hepatic adenomas appear to be associated with the use of oral contraceptives Although benign, and rare, hepatic adenomas may rupture and may cause death through intra-abdominal hemorrhage This has been reported in short-term as well as long-term users of oral contraceptives, although one study relates risk with duration of use of the contraceptive While hepatic adenoma is a rare lesion, it should be considered in women presenting abdominal pain and tenderness, abdominal mass, or shock

A few cases of hepatocellular carcinoma have been reported in women taking oral contraceptives [ ]

5. USE IN PREGNANCY, BIRTH DEFECTS IN OFFSPRING, AND MALIGNANCY IN FEMALE OFFSPRING The use of female sex hormones—both estrogenic and progestational agents—during early pregnancy may seriously damage the offspring It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare This risk has been estimated as not greater than 4 per 1,000 exposures Although there is no evidence at the present time that oral contraceptives further enhance the risk of developing this type of malignancy, such patients should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception Furthermore, a high percentage of such exposed women (from 30 to 90%) have been found to have epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether this condition is a precursor of vaginal malignancy Although similar data are not available with the use of other estrogens, it cannot be presumed that they would not induce similar changes

Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb-reduction defects One case control study has estimated a 4.7-fold increase in risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormonal withdrawal tests for pregnancy or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than one in 1,000 live births.

In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestins are effective for these uses.

There is some evidence that triploidy and possibly other types of polyploidy are increased among abortuses from women who become pregnant soon after ceasing oral contraceptives Embryos with these anomalies are virtually always aborted spontaneously Whether there is an overall increase in spontaneous abortion of pregnancies conceived soon after stopping oral contraceptives is unknown.

Pregnancy should be ruled out before initiating or continuing the contraceptive regimen Pregnancy should always be considered if withdrawal bleeding does not occur. If pregnancy is confirmed, the patient should be apprised of the potential risks to the fetus and the advisability of continuation of the pregnancy should be discussed in the light of these risks It is also recommended that women who discontinue oral contraceptives with the intent of becoming pregnant use an alternate form of contraception for a period of time before attempting to conceive. Many clinicians recommend 3 months

The administration of progestin-only or progestin-estrogen combinations to induce withdrawal bleeding should not be used as a test of pregnancy

6. GALLBLADDER DISEASE. Studies report a doubling of the risk of surgically confirmed gallbladder disease in users of oral contraceptives or estrogen for 2 or more years

7. CARBOHYDRATE AND LIPID METABOLIC EFFECTS A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives For this reason, prediabetic and diabetic patients should be carefully observed while receiving oral contraceptives.

An increase in triglycerides and total phospholipids has been observed in patients receiving oral contraceptives

8 ELEVATED BLOOD PRESSURE. An increase in blood pressure has been reported in patients receiving oral contraceptives. In some women hypertension may occur within a few months of beginning oral contraceptive use. In the first year of use, the prevalence of women with hypertension is low in users and may be no higher than that of a comparable group of nonusers The prevalence in users increases, however, with longer exposure, and in the fifth year of use is two and a half to three times the reported prevalence in the first year. Age is also strongly correlated with the development of hypertension in oral contraceptive users Women who previously have had hypertension during pregnancy may be more likely to develop elevation of blood pressure when given oral contraceptives

9 HEADACHE. The onset or exacerbation of migraine or development of headache of a new pattern which is recurrent, persistent, or severe, requires discontinuation of oral contraceptives and evaluation of the cause

10. BLEEDING IRREGULARITIES Breakthrough bleeding, spotting, and amenorrhea are frequent reasons for patients discontinuing oral contraceptives In breakthrough bleeding, as in all cases of irregular bleeding from the vagina, nonfunctional causes should be borne in mind. In undiagnosed persistent or recurrent abnormal bleeding from the vagina, adequate diagnostic measures are indicated to rule out pregnancy or malignancy [ ] Changing to an oral contraceptive with a higher estrogen content, while potentially useful in minimizing menstrual irregularity, should be done only if necessary since this may increase the risk of thromboembolic disease.

Women with a past history of oligomenorrhea or secondary amenorrhea or young women without regular cycles may have a tendency to remain anovulatory or to become amenorrheic after discontinuation of oral contraceptives. Women with these preexisting problems should be advised of this possibility and encouraged to use other contraceptive methods

11 ECTOPIC PREGNANCY Ectopic as well as intrauterine pregnancy may occur in contraceptive failures. However, in oral contraceptive failures, the ratio of ectopic to intrauterine pregnancies is higher than in women who are not receiving oral contraceptives, since the drugs are more effective in preventing intrauterine than ectopic pregnancies. [ ]

12 BREAST FEEDING Oral contraceptives given in the postpartum period interfere with lactation. There may be a decrease in the quantity and quality of the breast milk. Furthermore, a small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. [ ] If feasible, the use of oral contraceptives should be deferred until the infant has been weaned

PRECAUTIONS: General 1. A complete medical and family history should be taken prior to the initiation of oral contraceptives The pretreatment and periodic physical examinations should include special reference to blood pressure, breasts, abdomen and pelvic organs, including Papanicolaou smear and relevant laboratory tests As a general rule, oral contraceptives should not be prescribed for longer than 1 year without another physical examination being performed 2 Under the influence of estrogen-progestogen preparations, preexisting uterine leiomyomata may increase in size. 3 Patients with a history of psychic depression should be carefully observed and the drug discontinued if depression recurs to a serious degree Patients becoming significantly depressed while taking oral contraceptives should stop the medication 4 Oral contraceptives may cause some degree of fluid retention They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention, such as convulsive disorders, migraine syndrome, or cardiac or renal insufficiency 5. Patients with a past history of jaundice during pregnancy have an increased risk of recurrence of jaundice while receiving oral contraceptive therapy If jaundice develops in any patient receiving such drugs, the medication should be discontinued 6 Steroid hormones may be poorly metabolized in patients with impaired liver function and should be administered with caution in such patients 7 Oral contraceptive users may have disturbances in normal tryptophan metabolism which may result in a relative pyridoxine deficiency 8 Serum folate levels may be depressed by oral contraceptive therapy Since the pregnant woman is predisposed to the development of folate deficiency and the incidence of folate deficiency increases with increasing gestation, it is possible that if a woman becomes pregnant shortly after stopping oral contraceptives, she may have a greater chance of developing folate deficiency and complications attributed to this deficiency 9 The pathologist should be advised of oral contraceptive therapy when relevant specimens are submitted 10 Certain endocrine and liver function tests and blood components may be affected by estrogen-containing oral contraceptives

a Increased sulfobromophthalein retention

b Increased prothrombin and factors VII, VIII, IX, and X; decreased antithrombin 3; increased norepinephrine-induced platelet aggregability

c. Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by protein-bound iodine (PBI), T4 by column, or T4 by radioimmunoassay Free T3 resin uptake is decreased, reflecting the elevated TBG, free T4 concentration is unaltered

d Decreased pregnanediol excretion.

e Reduced response to metyrapone test.

INFORMATION FOR THE PATIENT (See Patient Package Insert)

DRUG INTERACTIONS: Reduced efficacy and increased incidence of breakthrough bleeding have been associated with rifampin. A similar association has been suggested with barbiturates, phenylbutazone, phenytoin sodium, and ampicillin. [ ]

ADVERSE REACTIONS: An increased risk of the following serious adverse reactions has been associated with the use of oral contraceptives (see WARNINGS).

Thrombophlebitis; pulmonary embolism; coronary thrombosis; cerebral thrombosis; cerebral hemorrhage, hypertension; gallbladder disease; congenital anomalies

There is evidence of an association between the following conditions and the use of oral contraceptives, although additional confirmatory studies are needed

Mesenteric thrombosis; benign hepatomas, neuro-ocular lesions, e g , retinal thrombosis and optic neuritis

The following adverse reactions have been reported in patients receiving oral contraceptives and are believed to be drug related

Nausea, usually the most common adverse experience; vomiting reaction, occurring in approximately 10% or less of patients during the first cycle Other reactions, as a general rule, are seen much less frequently or only occasionally, gastrointestinal symptoms (such as abdominal cramps and bloating); breakthrough bleeding, spotting; change in menstrual flow; dysmenorrhea, amenorrhea during and after treatment, temporary infertility after discontinuance of treatment, edema, chloasma or melasma which may persist, breast changes: tenderness, enlargement and secretion; change in weight (increase or decrease); change in cervical erosion and cervical secretion; possible diminution in lactation when given immediately postpartum; cholestatic jaundice, migraine, increase in size of uterine leiomyomata; rash (allergic); mental depression; reduced tolerance fo carbohydrates, vaginal candidiasis

The following adverse reactions have been reported in users of oral contraceptives, and the association has been neither confirmed nor refuted:

Premenstrual-like syndrome; intolerance to contact lenses; change in corneal curvature (steepening), cataracts; changes in libido; chorea, changes in appetite; cystitis-like syndrome; headache, nervousness; dizziness, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, vaginitis; porphyria, impaired renal function

ACUTE OVERDOSE: Serious ill effects have not been reported following acute ingestion of large doses of oral contraceptives by young children Overdosage may cause nausea, and withdrawal bleeding may occur in females [ ]

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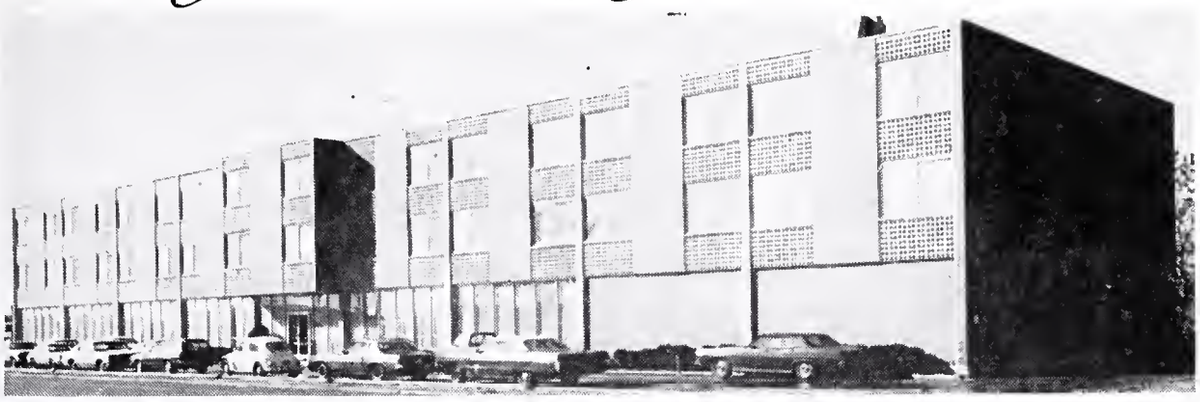

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Why Physicians Should Become Involved in Politics
National Health Insurance
Hospital-Medical Staff Relationships

★★ PANEL ★★

Observations and Views on National Health Insurance: Preparing Physicians to Influence Public Opinion and Congress

★★ PANEL ★★

An Update on Significant Developments Impacting Upon Medical Practice in Texas

Congress approves physician extender legislation

Congress has passed and sent to the White House legislation authorizing Medicare payments for physician assistants and nurse practitioners in rural health clinics.

Payment under Part B of Medicare to the clinics will be for 80% of the reasonable cost. The Medicaid law also was changed to allow payment of 100% of reasonable costs to the clinics.

The clinics do not have to be under the direct supervision of physicians, but must have arrangements with one or more physicians for periodic review of services provided by nonphysicians.

The clinics must be in shortage areas, but they could remain eligible for payments if the area subsequently loses its shortage status. Physician assistants and nurse practitioners must practice in accordance with state law and meet HEW training requirements.

The legislation also provides for demonstration projects for Medicare services of physician-directed clinics in urban areas.

Health department removes smallpox vaccination from immunization schedules

The Texas Department of Health and the US Public Health Service have removed smallpox vaccination from all standard immunization schedules, after recommendations of professional advisory committees.

The Texas Department of Health will cease to provide smallpox vaccines Jan 1.

The decision to remove the vaccine was based on several factors, according to the Texas Department of Health. The incidence of smallpox has been reduced to infrequent outbreaks in areas of Ethiopia and Somalia. Because of the unprecedented success of the World Health Organization effort to eradicate smallpox, the threat of an imported epidemic is very small.

During the last decade, almost all nations have discontinued mandatory smallpox immunizations. A prime consideration in this decision was the fact that, with smallpox almost eradicated, the smallpox immunization itself was causing more death and damage than smallpox disease, according to the health department.

Another consideration in the decision to discontinue routine smallpox immunization is that commercial suppliers have ceased to manufacture vaccinia immune globulin (VIG), a human gamma globulin preparation used to protect against the virus of the smallpox vaccine. Therefore, there is no specific therapy for "eczema vaccinatum" and for smallpox vaccine-related infections in patients with immune deficiencies or patients in whom immune mechanisms are suppressed by steroids or other therapeutic drugs.

Routine smallpox immunization should no longer be administered, according to the health department. Persons traveling to areas where proof of recent smallpox immunization is required by the immigration authorities still need to obtain smallpox immunization.

However, the manufacture and provision of smallpox vaccine seems to be more a matter of private medical care provided to travelers, military and civilian, than it is a matter of state and local public health agencies, says the Texas Department of Health.

TMA joins Texas groups to form Voluntary Hospital Cost Containment Panel

The Texas Medical Association has joined with representatives of the major health care and related organizations in Texas to form the Texas Hospital Association Voluntary Hospital Cost Containment Panel.

The panel held its first meeting Dec 15 in Austin.

The hospital industry nationwide is responding to a challenge issued by Rep Dan Rostenkowski, chairman of the Health Subcommittee of the House Ways and Means Committee, to offer a workable alternative to the myriad of hospital cost containment legislation introduced during the first session of the 95th Congress.

At the national level, the American Medical Association, the American Hospital Association, and the Federation of American Hospitals jointly accepted the challenge of Rep Rostenkowski.

In support of the national effort, voluntary cost containment panels are being organized in each state.

Other Texas organizations represented on the panel include the Health Insurance Association of America, the Office of the Governor, the Texas Association of Business, the Texas Association of Homes for the Aging, the Texas Association of Hospital Auxiliaries, the Texas Association of Hospital Governing Boards, and Texas Blue Cross/Blue Shield. Other organizations include the Texas Department of Health, the Texas Department of Human Resources, the Texas Federation of Hospitals, the Texas Nurses Association, the Texas Nursing Home Association, the Texas Osteopathic Medical Association, and the Texas Society of Certified Public Accountants.

Blue Cross and Blue Shield will consolidate staffs

The Blue Shield Association and Blue Cross Association will operate under one chief executive officer and one staff sometime after Jan 1.

The action is the result of a joint meeting in October of the two associations.

Designed to promote greater efficiency and economy within the two associations, the move is the result of a year and a half study on ways to coordinate more effectively the associations' activities.

Under the plan, the two national associations will remain as two corporations. They will retain their names and present boards of directors.

From January through May 1978 the chief executive officer will prepare a detailed organizational plan for a consolidated staff. The new organization plan will be implemented during the following year and should be fully operational by May 1979.

UT Medical Branch develops rehabilitation program for burn victims

A comprehensive program aimed at rehabilitating burn victims will be developed by researchers at The University of Texas Medical Branch and the Shriner's Burns Institute with money provided by a grant from the Department of Health, Education and Welfare.

The grant awards $150,000 annually for a minimum of three years to UTMB to create a pilot program that will serve as a role model for other medical centers in the state and the nation interested in creating similar centers.

The principal investigator for the project is Duane L. Larson, MD, chief surgeon at the Shriner's Burns Institute. Dr Larson will head a team of eight co-investigators and various support personnel.

Burns are often referred to as "the silent epidemic," Dr Larson explained. Fire is responsible for more death and injuries each year than the Vietnam War was during its height.

The Shriner's Burns Institute was established in 1966 and maintains 30 beds, 15 for acutely burned children and 15 for reconstruction. The Medical Branch burn unit is located on the seventh floor of John Sealy Hospital and maintains 16 beds.

Houston schools develop occupational safety and health training

The University of Texas Health Science Center at Houston is serving as the hub of a four-institution consortium formed to train professional and para-professionals in the field of occupational safety and health.

Marcus M Key, MD, is director of the new Texas Occupational Safety and Health Education Resource Center, headquartered at UTHSC's School of Public Health and funded, in part, by a five-year, $3, 464,847 training grant from the Department of Health, Education and Welfare, Public Health Service.

Other schools participating are the UTHSC Medical School, Texas Woman's University College of Nursing, and Texas A&M University's Department of Industrial Engineering.

Drawing on the resources of the participating schools and other UTHSC components, the center offers physicians a one-to-two-year residency in occupational medicine and provides graduate-level training of industrial hygienists, engineers, occupational health nurses, safety professionals, and those in related disciplines such as epidemiology and toxicology.

Jack Harris Research Unit dedicated by MD officials

The Jack Harris Research Unit of the Jerry Lewis Neuromuscular Disease Research Center at Baylor College of Medicine in Houston has been dedicated in ceremonies officiated by Michael E. DeBakey, MD, president; Jerry Lewis, honorary national chairman of the Muscular Dystrophy Association, and Sylvester L. Weaver, Jr, muscular Dystrophy Association president.

The 10,000 square-foot unit consists of 12 laboratories located in the Neurosensory Center, a joint project of Baylor College of Medicine and The Methodist Hospital. The unit was made possible by an MDA grant of $1 million, and is named in honor of Jack Harris, president of Houston-based KPRC Channel Two Television, local broadcasters of the Jerry Lewis Labor Day Telethon.

Texas Medical Association coordinates Physician's Placement Service

The Texas Medical Association coordinates a Physician's Placement Service for communities seeking physicians, physicians seeking associates, and physicians seeking locations.

Two publications, "Physicians Seeking Locations in Texas" and "Opportunities for Practice in Texas," are prepared and distributed bimonthly.

Physicians seeking locations receive the list of opportunities while communities and physicians receive the list of physicians available for practice.

The service is provided without charge. For information write the Department of Medical Service, Texas Medical Association, 1905 N Lamar Blvd, Austin, 78705.

Coming next month

Articles scheduled for the February issue will deal with the demystification of medicine, growth hormone deficiency with septo-optic dysplasia, response of left ventricular ejection time to inhalation of amyl nitrite, clinical applications and a discussion of problems associated with use of sodium nitroprusside, and the economic and political policies of the Texas medical profession in the progressive era.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media*	1977 Through 11/30	3 Years Ended 12/31/76	5 Years Ended 12/31/76	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	− 3.8%	− 9.3%	− 8.3%	1.2%
Loomis-Sayles Mutual Fund	− 8.2%	− 1.6%	− 4.4%	3.4%
Mercantile Bank Equity Fund	− 6.9%	+ 5.9%	−17.8%	4.3%
Mercantile Bank Fixed Income Fund	− 2.2%	+ 0.2%	− 5.5%	7.2%
T Rowe Price Growth Stock Fund	− 9.6%	− 2.6%	−16.6%	2.3%
T Rowe Price New Income Fund	− 2.3%	+ 2.7%	N/A	7.8%
Stein Roe & Farnham Balanced Fund	− 9.5%	− 0.5%	− 2.7%	3.4%
Standard & Poor 500 Stock Average	−11.8%	+10.4%	+ 5.3%	
Dow Jones Industrial Average	−17.4%	+18.1%	+12.9%	

*Includes reinvested capital gains distributions.

CAPITAL COMMENTS

WASHINGTON: GOVERNMENT REGULATION COSTS. To comply with government regulations, a hospital spends approximately $36 per inpatient stay. A study conducted by the Michigan Hospital Association covered six hospitals and included such regulations as utilization and PSRO reviews, plant codes, personnel management, the state's arbitration program, certificate of need requirements, and federal reimbursement mechanisms.

AUSTIN: HEALTH COORDINATING COUNCIL. Gov Dolph Briscoe has appointed John H. Selby, Sr, MD, Lubbock, to the Texas Health Coordinating Council for a two-year term.

WASHINGTON: MEDICARE FUNDS WASTED. Welfare agency mismanagement has wasted more than $2 billion a year in Medicaid funds, says HEW Secretary Joseph Califano. In a report to a House Health Subcommittee, Califano said errors by the 21.6 million poor persons receiving Medicaid services are declining, while errors by agencies administering the services are rising. Califano said Medicaid misspending is more than twice as much as the $1 billion annually the HEW has estimated previously. During fiscal year 1977, at least $1.2 billion was paid for services to persons who were ineligible, while $200 million was lost through duplicate payments, overpayments, and payments to ineligible providers. Another $600 million was lost through government failure to collect from third party payors and workers' compensation.

WASHINGTON: ANTITRUST ASPECTS OF HEALTH CARE. Rep Paul Rogers, D-Fla, chairman of the House Commerce and Health Subcommittee, is concerned that the Administration is moving in different directions on antitrust aspects of the health care industry. The HEW Health Care Financing Administration is looking for a means of controlling Medicare and Medicaid costs through such devices as price-setting, while the Federal Trade Commission has been looking at the health care industry from the traditional antitrust point of view and considering cutting costs by increasing competition.

AUSTIN: SECRETARY OF STATE. Steven C. Oaks, Houston, has been appointed by Gov Dolph Briscoe to serve as Texas Secretary of State. Oaks replaces former Texas Secretary of State Mark White.

WASHINGTON: NATIONAL HEALTH SERVICE. The American Public Health Association (APHA) is calling for adoption of a national health service involving varying benefits for defined population groups financed by insurance contributions. The APHA wants a national health service run by the government, excluding private insurance and private fiscal organizations. Under the plan, all citizens are entitled to comprehensive health service without limitations. All services would be provided by salaried health workers, including physicians.

WASHINGTON: AMA LEGISLATIVE POSITIONS. At a recent meeting of the AMA Board of Trustees, the trustees voted to oppose HR 8891, amendments to the Food, Drug and Cosmetic Act which would require patient package inserts for all drugs, repeal the exemption from new drug requirements for pre-1938 drugs, and give the HEW Secretary the authority to allow suspension of approval of a new drug based upon its relative efficacy compared to other drug treatments

Editor's note: "Capital Comments" is prepared by Brown, Maroney, Rose, Baker & Barber, Attorneys at Law, TMA General Counsel, to highlight current items of interest relating to health matters in the US Congress federal agencies, state legislature, and Texas administrative agencies.

available. The trustees also voted to oppose S2040, more amendments to the Food, Drug and Cosmetic Act which would establish significant new authorities for the FDA Commissioner. The trustees voted to oppose Medicaid coverage for nurse midwife services. The proposed Health Services Act, that would create a national health service to be administered by a national board, was also opposed by the AMA trustees. Under the proposed law, all providers, as salaried employees, would be paid and receive benefits by the federal government.

AUSTIN: WELFARE BENEFITS ABUSE. The Texas Department of Human Resources has found very little abuse of welfare benefits by its own employees, said an agency spokesman after performing payroll screenings. Twice a year the department's payroll is checked against the rolls of recipients of food stamps and Aid to Families with Dependent Children payments. Employees found receiving welfare benefits are audited for eligibility. In the last half of 1976, the check found 293 instances where employees were receiving benefits, but only 22 were found ineligible. Most of the ineligibility resulted from promotions or pay raises that should have been reported but were not, the agency spokesman said.

WASHINGTON: NATIONAL HEALTH INSURANCE. One of the alternatives to National Health Insurance submitted to President Carter and HEW officials has come from Alain Enthoven, a Stanford University professor and former Pentagon associate of HEW Secretary Joseph Califano. Enthoven submitted a consumer choice health plan that would finance health insurance for the populace through tax credits or vouchers while the government would aim at phasing out its commitment to third party reimbursement insurance.

MONTANA: INSURANCE FIRM. Delegates to Montana Medical Association's annual meeting voted to take the necessary steps toward creating a physician-owned liability insurance company.

OREGON: MEDICAL MALPRACTICE COUNTERSUITS. The Oregon Supreme Court upheld the dismissal of a physician's countersuit for malicious prosecution due to failure to demonstrate special injury beyond the trouble, cost, and other consequences in the defense of a lawsuit.

WISCONSIN: MANDATORY CHIROPRACTIC COVERAGE. The Wisconsin State Assembly has approved a bill that would require consumers to purchase chiropractic health insurance coverage if they purchase coverage for physician's services. Doug Nelson, legislative coordinator for the State Medical Society of Wisconsin, has stated that increased cost for a family of four will be about $7 annually, but the increase will be $350,000 for an employer the same size as the state government. The cost to local governments will also be high, he added, and could be as much as $250-270,000 a year. Wisconsin becomes the thirty-third state since 1963 to pass an insurance equality statute.

NORTH CAROLINA: HEALTH PLANNING LAW. A federal court in North Carolina has ruled that the 1974 Federal Health Planning Law is not unconstitutional. The three-judge panel in Raleigh, NC, rejected arguments that the planning law unfairly interfered with states and private physicians rights and held that Congress had a perfect right to attach any conditions to the distribution of federal funds. The suit challenging the law's constitutionality had been brought by the State of North Carolina, the American Medical Association, the North Carolina Medical Association, and the State of Nebraska. The North Carolina Attorney General has stated that he will appeal the ruling to the US Supreme Court. Both the AMA and North Carolina Medical Society will join in the appeal.

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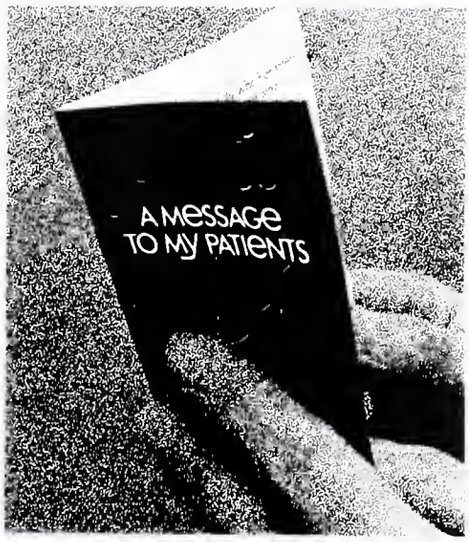

designed to encourage patients to ask your advice about abusive drinking, and to start them thinking about related driving hazards. The materials work. In test cities, up to 60% of physicians displaying them noted increased discussion of alcohol problems.

Your local affiliate of the National Council on Alcoholism is also ready to assist you with referrals to counseling and therapy services and in other ways.

Right now, automobile crashes kill more people aged 35 and under than any illness. And half of all automobile deaths are alcohol related.

Stop a drunk driver in your waiting room.

They'll listen to a pro.

To: Film & Literature Section, Texas Commission on Alcoholism
809 Sam Houston Office Bldg. Austin, Texas 78701

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☐ I am presently in the JUA and would like information on converting to the ICA-JUA combination program to obtain higher limits.

Date coverage requested_____.

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Street_____

City_____Tx. Zip_____

Phone( )_____Specialty_____

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☐ Please have an agent send application for coverage.

☐ I am presently in the JUA and would like information on converting to the ICA-JUA combination program to obtain higher limits.

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CONTINUING EDUCATION COURSES

JANUARY

Adolescents' Medical Care

Title: "A is for Adolescents at Risk, and . . .," Fourth Annual Conference, San Antonio Child Abuse Council
Sponsors: San Antonio Child Abuse Council; UT Health Science Center at San Antonio
Location of Course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio
Date: Jan 19-20, 1978
Duration: Continuous, 2 days; 8 hours instruction per day; Thursday-Friday; 8 am-5 pm; 11 total course hours
Fee: $25
Designed For: Specialists in Adolescents' Medical Care, Psychiatry
Enrollment: Maximum, 350
Credit: Category 1, AMA Physician's Recognition Award; 11 hours
Teaching Methods: Lecture, workshop
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Cardiology

Title: Exercise Therapy for the Cardiac Patient
Sponsor: Department of Physical Medicine, Department of Medicine, Baylor College of Medicine, Houston
Location of Course: Holiday Inn-Medical Center, 6701 S Main, Houston
Date: Jan 27-28, 1978
Duration: Continuous; 2 days; Friday-Saturday
Fee: $75
Designed For: General practitioners; Specialists in Cardiology
Credit: Category 1, AMA Physician's Recognition Award
Teaching Methods: Audiovisual materials, lecture
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Gastroenterology

Title: Review Course in Gastroenterology and Infectious Diseases
Sponsor: Baylor College of Medicine, Houston
Location of Course: Stella Solaris Cruise Ship (Caribbean)
Date: Jan 29-Feb 10, 1978
Duration: Continuous; 13 days; 36 total course hours
Designed For: Specialists in Gastroenterology, Infectious Disease, Internal Medicine
Credit: Category 1, AMA Physician's Recognition Award; 36 hours
Teaching Methods: Audiovisual materials, lecture
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Internal Medicine

Title: Eighth Annual G.P.A. Forde Memorial Lecture Series
Sponsor: Division of Continuing Education, UT Health Science Center at Houston
Location of Course: St Elizabeth Hospital, 4514 Lyons, Houston
Date: January 1978
Duration: Continuous; 1 day; 6 total course hours
Fee: To be announced
Designed For: General practitioners; Specialists in Family Medicine
Enrollment: Open
Credit: AAFP; Category 1, AMA Physician's Recognition Award: 6 hours
Teaching Methods: Lecture
Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Neurology

Title: Practical Neurology for Family Physicians and Internists
Sponsor: Department of Neurology, Baylor College of Medicine, Houston
Location of Course: Holiday Inn-Medical Center, 7601 S Main, Houston
Date: Jan 13-15, 1978
Duration: Continuous; 3 days; Friday-Sunday; 16 total course hours
Fee: $125
Designed For: General practitioners; Specialists in Neurology, Physical Medicine & Rehabilitation
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours
Teaching Methods: Audiovisual materials, lecture
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Obstetrics & Gynecology

Title: Current Obstetric and Gynecologic Practice
Sponsor: San Antonio Obstetrical and Gynecological Society
Location of Course: Oak Hills Motor Inn, 7401 Wurzbach, San Antonio
Date: Jan 19-25, 1978
Duration: Continuous; 7 days; 6 hours instruction per day; Thursday-Wednesday; 41 total course hours
Fee: $400
Designed For: General practitioners; Specialists
Enrollment: Maximum, 150
Credit: AAFP Elective; Category 2, AMA Physician's Recognition Award; 41 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: Carl J. Pauerstein, MD, Professor of Obstetrics & Gynecology, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Psychiatry

Title: Electroconvulsive Therapy: A Modern Perspective

Sponsors: Department of Psychiatry, Office of Continuing Medical Education, Texas Tech University School of Medicine, Lubbock; American Psychiatric Association
Location of Course: Hilton Inn, El Paso
Date: Jan 13-14, 1978
Duration: Continuous; 2 days; 9-6 hours instruction per day; Friday-Saturday; 15 total course hours
Fee: $150
Designed For: Specialists in Psychiatry, Psychology
Credit: American Psychiatric Association
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: Roy C. Allen, EdD, Director, Continuing Medical Education, Texas Tech University School of Medicine, Box 4569, Lubbock 79409

Title: Psychiatry and Women
Sponsor: Department of Psychiatry, Baylor College of Medicine, Houston
Location of Course: Warwick Hotel, Houston
Date: Jan 19-20, 1978
Duration: Continuous; 2 days; Thursday-Friday; 11 total course hours
Fee: $75
Designed For: Specialists in Psychiatry
Credit: Category 1, AMA Physician's Recognition Award; 11 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Radiology & Radioisotopes

Title: External Beam, Interstitial, and Intracavitary Dosimetry—Principles
Sponsors: Division of Continuing Education, UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute
Location of Course: UT Health Science Center at Houston, 1100 Holcombe, Houston
Dates: Jan 3-14, 1978; July 3-14, 1978
Duration: Continuous; 10 days; 2 weeks; 8 hours instruction per day; Monday-Friday; 80 total course hours
Fee: $350
Designed For: Specialists in Radiotherapy; Physicists
Teaching Methods: Enrollee performs procedure, laboratory work, lecture
Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Title: External Beam, Interstitial, and Intracavitary Dosimetry—Manual and Computer Methods of Calculation
Sponsors: Division of Continuing Education, UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute
Location of Course: UT Health Science Center at Houston, 1100 Holcombe Blvd, Houston
Dates: Jan 16-27, 1978. July 17-28, 1978
Duration: Continuous; 10 days; 2 weeks; 8 hours instruction per day; Monday-Friday; 80 total course hours
Fee: $350
Designed For: Specialists in Radiotherapy; Physicists
Teaching Methods: Enrollee performs procedure, laboratory work, lecture
Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Title: Third Annual Course in Diagnostic Radiology for Practicing Radiologists
Sponsor: UT Health Science Center at San Antonio
Location of Course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio
Date: Jan 18-20, 1978
Duration: Continuous; 3 days; 7½ hours instruction per day; Wednesday-Friday; 8 am-5 pm. 20 total course hours
Fee: $165
Designed For: Specialists in Radiology
Enrollment: Minimum, 25
Credit: Category 1, AMA Physician's Recognition Award; American College of Radiology; 20 hours
Teaching Methods: Audiovisual materials, lecture
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Title: High Energy Electron, X-Ray, and Neutron Dosimetry
Sponsors: Division of Continuing Education, UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute
Location of Course: M.D. Anderson Hospital and Tumor Institute, 6723 Bertner, Houston
Date: Jan 30-Feb 4, 1978
Duration: Continuous; 6 days; 1 week; 10 hours instruction per day; Monday-Saturday; 60 total course hours
Fee: $250
Designed For: Physicists
Teaching Methods: Enrollee performs procedure, programmed instruction, lecture
Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

FEBRUARY

Basic Sciences: Pharmacology

Title: Drug Interaction
Sponsor: Division of Continuing Education, UT Health Science Center at Houston
Location of Course: Texas Medical Center, Houston
Date: Feb 19, 1978

Duration: Continuous; ½ day; Sunday; 4 total course hours
Fee: To be announced
Designed For: General practitioners; Specialists in Family Medicine
Credit: Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, lecture, open question
Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Chest Disease

Title: Practical Workshop in Pulmonary Disease
Sponsor: UT Health Science Center at San Antonio
Location of Course: To be announced
Dates: Feb 17-19, 1978
Duration: Continuous; 3 days; Friday-Sunday; 19 total course hours
Fee: $175
Designed For: General practitioners
Credit: Category 1, AMA Physician's Recognition Award; 19 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Family Medicine

Title: Family Practice Review 1978
Sponsor: Continuing Education Division, UT Medical Branch, Galveston
Location of Course: Galvez Hotel/Motel, 21st & Seawall, Galveston
Dates: Feb 5-11, 1978
Duration: Continuous; 6 days; 8 hours instruction per day; Monday-Saturday; 8 am-5 pm; 48 total course hours
Fee: $300
Designed For: General practitioners
Enrollment: Minimum, 60; Maximum, 120
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 48 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, patient demonstration, seminar, live clinic
Contact: NeKee McNulty, Assistant to the Director, Continuing Education Division, John Sealy Hospital, Eighth Floor, UT Medical Branch, Galveston 77550

General Medicine

Title: Cardiac Pacing for the Practitioner
Sponsor: UT Health Science Center at San Antonio
Location of Course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio
Dates: Feb 10-12, 1978
Duration: Continuous; 3 days; 4 hours instruction per day; Friday-Sunday; 12 total course hours
Fee: $50
Designed For: General practitioners; Specialists
Enrollment: Open
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 12 hours
Teaching Methods: Audiovisual materials, clinical conference (small group), lecture, open question, panel
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Title: Second Annual Conference on Alcoholism: The Medical Side
Sponsor: Texas Tech University School of Medicine, Lubbock
Location of Course: Regional Academic Health Center, 4800 Alberta, El Paso
Dates: Feb 24-25, 1978
Duration: Continuous; 2 days; Friday-Saturday
Fee: Physicians, $70; Non-physicians, $20
Designed For: General practitioners; Specialists in Psychiatry
Teaching Methods: Audiovisual materials, lecture, open question
Contact: Roy C. Allen, EdD, Director, Continuing Medical Education, Texas Tech University School of Medicine, Box 4569, Lubbock 79409

Geriatrics

Title: Parkinson's Disease: Aging and Neuroendocrine Relationships
Sponsors: Department of Pharmacology and Therapeutics, Office of Continuing Education, Texas Tech University School of Medicine, Lubbock; Tarbox Parkinson's Disease Institute
Location of Course: South Park Inn, Loop 289 & Indiana, Lubbock
Dates: Feb 2-4, 1978
Duration: Continuous; 3 days; Thursday-Saturday
Fee: To be announced
Designed For: General practitioners; Specialists in Physiology, Pharmacology, Geriatrics, Neurology, Endocrinology
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: Roy C. Allen, EdD, Director, Continuing Medical Education, Texas Tech University School of Medicine, Box 4569, Lubbock 79409

Surgery

Title: Annual Meeting, South Texas Chapter, American College of Surgeons
Sponsor: South Texas Chapter, American College of Surgeons
Location of Course: Shamrock Hilton Hotel, 6900 Main, Houston
Dates: Feb 2-4, 1978
Duration: Continuous; 2½ days; 8 hours instruction per day; Thursday-Saturday; 20 total course hours
Fee: None
Designed For: Specialists in General Surgery; All surgical specialists
Credit: Category 1, AMA Physician's Recognition Award; 20 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel
Contact: Peter B. Fisher, MD, President, South Texas Chapter, American College of Surgeons, 615 Medical Towers Bldg, Houston 77030

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FOLATE
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FOLLICLE STIMULATING HORMONE
GASTRIN
GROWTH HORMONE
HCG RADIORECEPTOR PREGNANCY TEST
INSULIN
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Anxiety...
Often a significant feature of irritable bowel syndrome*

The action of Librium®
(chlordiazepoxide HCl)

A significant advantage of adjunctive

Librax®

Each capsule contains
5 mg chlordiazepoxide HCl and
2.5 mg clidinium Br.

Antianxiety
Antisecretory
Antispasmodic

Librax is unique among GI medications in providing the specific antianxiety action of Librium® (chlordiazepoxide HCl) as well as the potent antisecretory and antispasmodic actions of Quarzan® (clidinium Br) for adjunctive therapy of irritable bowel syndrome* and duodenal ulcer.

*Librax has been evaluated as possibly effective for this indication.
Please see brief summary of prescribing information on following page.

ROCHE

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

ROCHE

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Medical Director

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Lifesaving Partnership... Against Cancer Quackery

The anguish associated with cancer is compounded by the cancer quack. False hopes—harmful delays—devastating expenses—deceptive diagnoses—loss of life—these are hazards facing the cancer patient desperate enough to seek a cancer quack.

The problem: how to divert the patient from this tragic encounter.

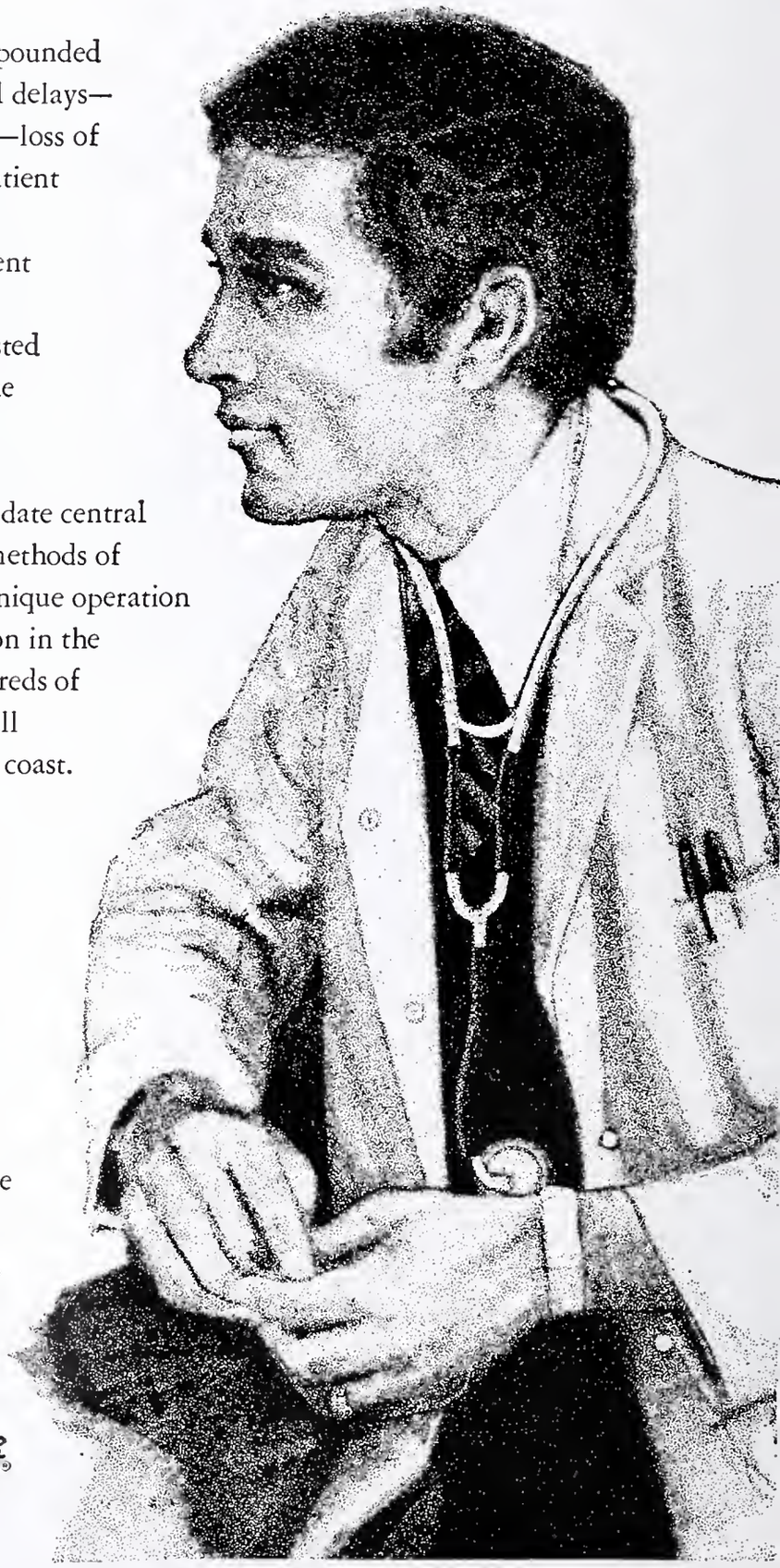
As medical guide, family counselor, trusted friend—you, *doctor,* play a major role in the fight against cancer quackery.

We are here to serve as your partner.

Our National Office maintains an up-to-date central clearinghouse for materials on unproven methods of cancer diagnosis and treatment. This is a unique operation and the principal source of such information in the country. Its services are widely used. Hundreds of inquiries are received and answered from all segments of the community, from coast to coast.

To trigger grass-roots action, we have formulated a model State Cancer Remedy Act designed to control the promotion and sale of unproven methods of cancer management. This has helped to inspire some 20 states to enact or consider legislation against cancer quackery—with active support from the medical community. Copies of the model act, as well as copies of laws in effect, are available through our National and Division offices.

In these actions against cancer quackery, as in all our efforts against cancer, ours is a lifesaving partnership.



American Cancer Society

Texas Division Inc.
P. O. Box 9863
Austin, Texas 78766

SMA Cancer Information Center

Cancer is sufficiently prevalent that it touches every practitioner directly or indirectly. To facilitate the increasingly complex management of this disease, an easily accessible source of reference data is needed. This much-needed information is being supplied to physicians in the Southern Medical Association area by the University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute, in cooperation with the Southern Medical Association. Known as Dial Access, this system is an outgrowth of the National Cancer Act of 1971 and is partially funded through the Cancer Control Branch of the National Cancer Institute.

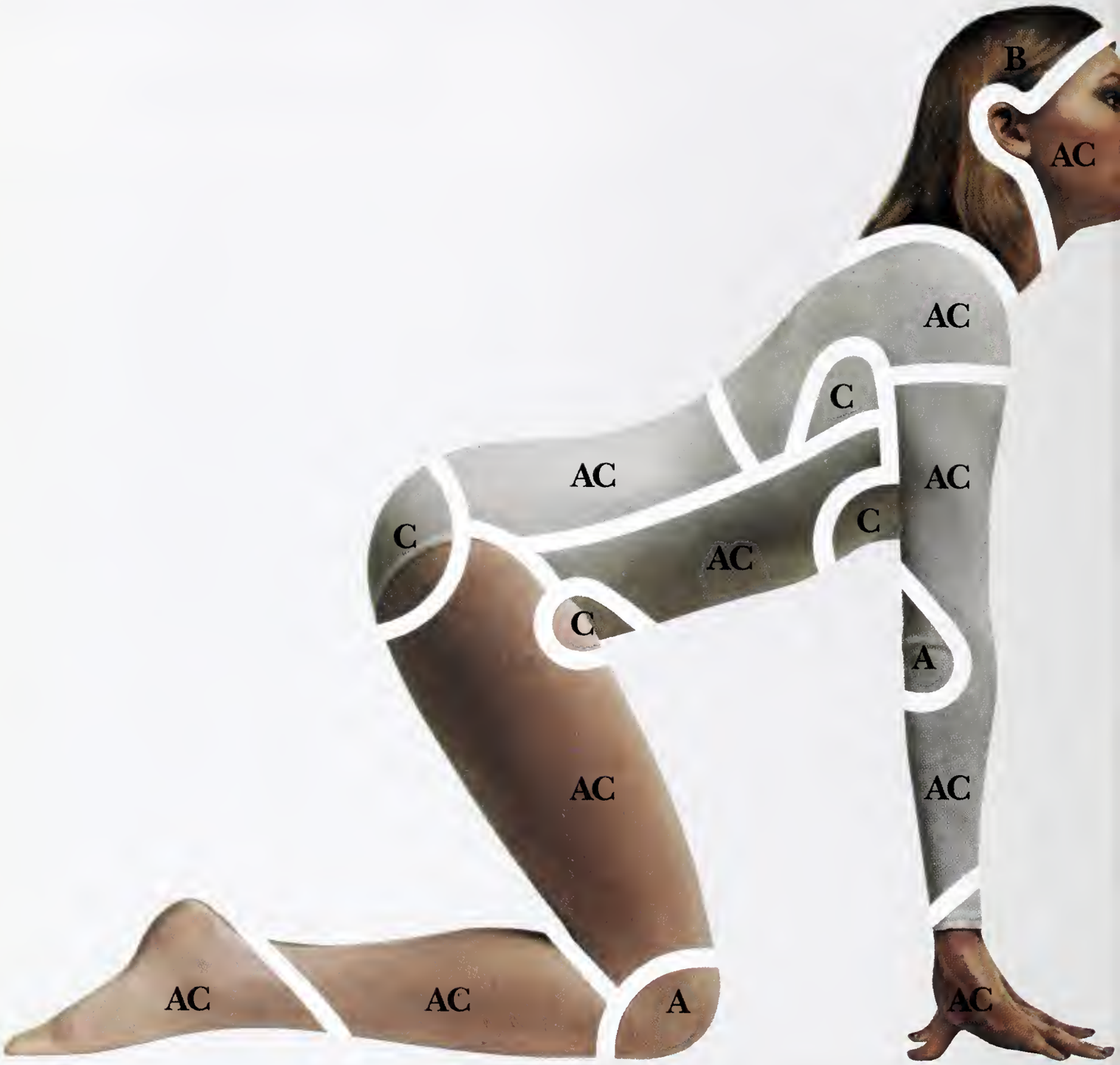
This system provides toll-free telephone calls from health practitioners in all 17 states through 5 WATS lines to tape cartridge players carrying some 350 narrations authored by physicians from the Southern Medical Association and the M.D. Anderson staff who have expertise in the management of various types of cancer. The tapes are concise, cite up to three references, and have author identification.

As well as providing cancer management reference information to physicians in the Southern Medical Association area, the project is in operation to assess the instructional value of this and similar systems as relates to improved patient care. In order to accomplish this last, callers will be asked to participate in an evaluation of the technique and information transmitted, by completion of a questionnaire mailed to first-time users.

INSTRUCTIONS FOR USE OF SYSTEM

- **HOURS:** Monday through Friday 8:00 AM—1:00 PM Central Standard Time
  Saturday 9:00 AM—1:00 PM Central Standard Time
  (This time coverage is on a trial basis.)
- **HOUSTON PHYSICIANS DIAL: 790-1683 • TEXAS PHYSICIANS DIAL: 1-800-392-3917**
- **ALL OTHERS DIAL: 1-800-231-6970 • IF THE LINE IS BUSY, REPLACE YOUR CALL!**
- **IDENTIFY YOURSELF BY NAME, ADDRESS, CITY AND STATE**
- **ASK FOR RECORDINGS SPECIFICALLY BY NUMBER**
- **PLEASE REPLY TO THE ANALYSIS QUESTIONNAIRE, TO BE MAILED WITHIN 4 TO 6 WEEKS**

For Free Catalog, Write:
SOUTHERN MEDICAL ASSOCIATION
CANCER INFORMATION CENTER
2601 Highland Avenue
Birmingham, Alabama 35205



FOR THE
ZONES OF DERMATOSES

For dry areas/lesions

A New **Halog® Ointment 0.1%**

Halcinonide Ointment 0.1%

For scalp lesions

B New **Halog® Solution 0.1%**

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Clinical experience

A total of 984 psoriatic patients in US clinical studies were treated with either the Solution, the Creams, or the Ointment. After 2 weeks' therapy,* 151 (78%) of 194 patients improved with Halog Solution, 407 (92.5%) of 440 patients improved with full-strength (0.1%) Halog Cream, 132 (72%) of 184 patients improved with quarter-strength (0.025%) Halog Cream, and 145 (87%) of 166 patients improved with Halog Ointment.

In general, the preferred topical formulations for lesions in specific areas are: solutions for scalp lesions, creams for moist areas/lesions, and ointments for dry areas/lesions. The studies cited above, however, were not limited to lesions in these specific areas.

*Majority of patients evaluated after 2 weeks' therapy. Data on file at Squibb Institute for Medical Research.

See next page for brief summary.

HALOG®

HALCINONIDE

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HALOG® (Halcinonide)
Cream/Ointment/Solution
Halog Cream 0.025% (Halcinonide Cream 0.025%) and Halog Cream 0.1% (Halcinonide Cream 0.1%) contain 0.25 mg. and 1 mg. halcinonide per gram, respectively, in a specially formulated cream base. Halog Ointment (Halcinonide Ointment 0.1%) contains 1 mg. halcinonide (0.1%) per gram in Plastibase® (Plasticized Hydrocarbon Gel), a polyethylene and mineral oil gel base. Halog Solution (Halcinonide Solution 0.1%) contains 1 mg. halcinonide (0.1%) per ml.
CONTRAINDICATIONS: Topical steroids are contraindicated in vaccinia, varicella, and in those patients with a history of hypersensitivity to any of the components of the preparations. These preparations are not for ophthalmic use.
PRECAUTIONS: *General*—If local infection exists, suitable concomitant antimicrobial or antifungal therapy should be administered. If a favorable response does not occur promptly, application of the corticosteroid should be discontinued until the infection is adequately controlled. If extensive areas are treated or if the occlusive technique is used, the possibility exists of increased systemic absorption of the corticosteroid and suitable precautions should be taken. If irritation or sensitization develops, the preparation should be discontinued and appropriate therapy instituted. Although topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use during pregnancy has not been absolutely established; therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time.
Occlusive Dressing Technique—The use of occlusive dressing increases the percutaneous absorption of corticosteroids; their extensive use increases the possibility of systemic effects. For patients with extensive lesions it may be preferable to use a sequential approach, occluding one portion of the body at a time. The patient should be kept under close observation if treated with the occlusive technique over large areas and over a considerable period of time. Occasionally, a patient who has been on prolonged therapy, especially occlusive therapy, may develop symptoms of steroid withdrawal when the medication is stopped. Thermal homeostasis may be impaired if large areas of the body are covered. Use of the occlusive dressing should be discontinued if elevation of the body temperature occurs. Occasionally, a patient may develop a sensitivity reaction to a particular occlusive dressing material or adhesive and a substitute material may be necessary. If infection develops, discontinue the use of the occlusive dressing and institute appropriate antimicrobial therapy.
ADVERSE REACTIONS: The following local adverse reactions have been reported with topical corticosteroids: burning, itching, irritation, striae, skin atrophy, secondary infection, dryness, folliculitis, hypertrichosis, acneform eruptions, and hypopigmentation. The following may occur more frequently with occlusive dressings: maceration of the skin, secondary infection, skin atrophy, striae, and miliaria. Contact sensitivity to a particular dressing material or adhesive may occur occasionally (see PRECAUTIONS).
For full prescribing information, consult package insert.
HOW SUPPLIED: The 0.025% and 0.1% Cream and the 0.1% Ointment are supplied in tubes of 15 g. and 60 g., and in jars of 240 g. (8 oz.). The 0.1% Solution is supplied in plastic squeeze bottles of 20 ml. and 60 ml.

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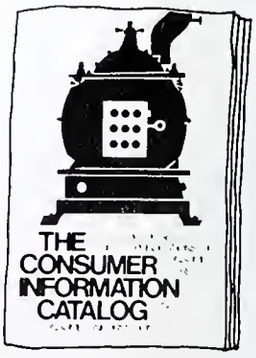
It's published by the Federal Government and lists over 200 booklets you can send away for. Over half are free. And all are wise. With tips on everything from appliance warranties to jogging and weight control.

So send for this free catalog. Write: Consumer Information Center, Dept. B, Pueblo, Colorado 81009. After all, wearing the wrong shoes for jogging can be just as silly as climbing the Himalayas in high heels.



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TEXAS MEDICAL ASSOCIATION

Texas Medical Association's 1978 Conference on Legislation and Medical Service will convene at 9 am, Saturday, Jan 21, 1978. Registration begins at 8:30 am. James N. Sites, senior vice-president, National Association of Manufacturers; J. Alexander McMahon, president, American Hospital Association; and Louie Welch, president and chief executive officer, Houston Chamber of Commerce, are among the program's distinguished speakers. Individual and panel presentations will focus on hospital cost containment, national health insurance, hospital-medical staff relationships, access to health care, PSRO, and professional liability insurance in Texas. A cocktail party for registrants and their families will follow the conference. Several committees and councils have scheduled meetings in conjunction with the conference. The Executive Board will meet at 7:30 am, Sunday, Jan 22, at the Austin Hilton Inn.

Contact: C. Lincoln Williston, Executive Director, 1801 N Lamar Blvd, Austin, Tex 78701.

TEXAS SOCIETY OF PATHOLOGISTS

The Texas Society of Pathologists will meet Friday-Sunday, Jan 27-29, 1978, at the Austin Hilton Inn. The meeting will begin with an executive committee meeting. Saturday's program includes presentations on Medicaid, Medicare, PSRO, ecology, Texas health facilities, and Texas Department of Health Resources laboratory services. The Caldwell Award Banquet will highlight Saturday evening, and a business meeting will be conducted Sunday from 9 am to 12 pm. A tour of the LBJ Library, reception at the state capitol, luncheon and shopping tour are on the ladies' program.

Contact: Mrs Iris Wenzel, 1905 N Lamar Blvd, Austin, Tex 78705.

MEETINGS

CURRENT NATIONAL MEETINGS

AMERICAN SOCIETY OF CONTEMPORARY MEDICINE AND SURGERY, 13th Annual Scientific Assembly, Americana Hotel, Miami, Jan 30-Feb 3, 1978. More than 70 distinguished faculty members, including Michael DeBakey, MD, president, American Society of Contemporary Medicine and Surgery; Dr Leon Jacobson, chairman, American Society of Contemporary Medicine and Surgery. Symposia on latest medical, surgical advances in cardiovascular disease, hypertension, gastrointestinal disease, cancer, cosmetic surgery, genitourinary disease, other topics. 40 hours, AMA Physician's Recognition Award. Contact: John G Bellows, MD, Director, 6 N Michigan Ave, Chicago 60602.

AMERICAN SOCIETY OF CONTEMPORARY OPHTHALMOLOGY, joint meeting with International Glaucoma Congress, Americana Hotel, Miami, Jan 28-Feb 3, 1978. Programs meet criteria for up to 50 hours, Category 1, AMA Physician's Recognition Award. Contact: Suite 1110, 6 N Michigan Ave, Chicago 60602.

NATIONAL CONFERENCE ON STRESS, STRAIN, HEART DISEASE & THE LAW, Copley Plaza Hotel, Boston, Jan 26-28, 1978. Sponsored by American Heart Association; American Society of Law and Medicine; President's Committee on Employment of the Handicapped; American Heart Association, Massachusetts Affiliate. Objectives: to investigate stress, strain, heart disease from clinical, medicolegal, insurance, employment perspectives; to discuss implications, implementation of 1977 Report of AHA Committee on Stress, Strain and Heart Disease. Contact: American Society of Law and Medicine, 454 Brookline Ave, Boston 02215.

For other courses and symposia, see Continuing Education Courses, pp 30-32.

Calendar of Listings

■ Denotes Texas Meetings

JANUARY

AMERICAN SOCIETY OF CONTEMPORARY MEDICINE AND SURGERY, Bal Harbour, Fla, Jan 28-Feb 3, 1978. Ms M Trueblood, Sec, 6 N Michigan Ave, Chicago 60602.

SOCIETY OF THORACIC SURGEONS, Orlando, Fla, Jan 23-25, 1978. 111 E Wacker Dr, Chicago, 60601.

SOUTHERN CLINICAL NEUROLOGICAL SOCIETY, San Juan, PR, Jan 16-20, 1978. BL Bercaw, MD, Sec-Treas, 1011 Jeffords St, Clearwater, Fla 33516.

■ **TEXAS MEDICAL ASSOCIATION, Winter Conference, Austin, Tex, Jan 20-22, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.**

■ TEXAS SOCIETY OF PATHOLOGISTS, Austin, Tex, Jan 27-29, 1978. Iris Wenzel, 1905 N Lamar Blvd, Austin, Tex 78705.

■ UNITED CEREBRAL PALSY ASSOCIATION OF TEXAS, INC, Austin, Tex, Jan 14-15, 1978. San Jacinto Bldg, Suite 201, Ninth and San Jacinto, Austin, Tex 78701.

FEBRUARY

AMERICAN ACADEMY OF ALLERGY, Phoenix, Ariz, Feb 25-Mar 1, 1978. Raymond G Slavin, MD, Exec Off, 1402 S Grand, St Louis 63104.

■ AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS, Dallas, Feb 23-28, 1978. Charles V Heck, MD, Exec Dir, 430 N Michigan Ave, Chicago 60611.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, Washington, DC, Feb 12-17, 1978. 1515 Massachusetts Ave, NW, Washington, DC 20005.

AMERICAN ASSOCIATION OF GENITO-URINARY SURGEONS, Key Largo, Fla, Feb 22-26, 1978. RA Straffon, MD, Sec-Treas, 2020 E 93rd St, Cleveland 44106.

AMERICAN COLLEGE OF PSYCHIATRISTS, New Orleans, Feb 8-12, 1978. JC Nemiah, MD, Admn Officer, Beth Israel Hospital, 330 Brookline Ave, Boston 02215.

■ AMERICAN COLLEGE OF SURGEONS, SOUTH TEXAS CHAPTER, Houston, Feb 2-4, 1978. Peter B Fisher, MD, Pres, 615 Medical Towers Bldg, Houston 77025.

AMERICAN GROUP PSYCHOTHERAPY ASSOCIATION, New Orleans, Feb 21-25, 1978. Ms MS Block, Exec Sec, 1995 Broadway, 14th Fl, New York 10023.

AMERICAN MEDICAL ASSOCIATION, 74th Congress on Medical Education, Chicago, Feb 3-5, 1978. Department of Meeting Services, 535 N Dearborn St, Chicago 60610.

■ AMERICAN ORTHOPAEDIC FOOT SOCIETY, Dallas, Feb 22-23, 1978. RA Mann, MD, Sec, 3334 Webster St, Oakland, Calif 94609.

■ AMERICAN SOCIETY FOR SURGERY OF THE HAND, Dallas, Feb 19-24, 1978. RJ Smith, MD, Sec, Dept of Orthopaedics, Massachusetts General Hospital, Fruit St, Boston 02114.

ASSOCIATION FOR THE ADVANCEMENT OF MEDICAL INSTRUMENTATION, Chicago, Feb 25-Mar 1, 1978. MJ Miller, JD, Exec Dir, 1901 N Ft Myer Dr, Suite 602, Arlington, Va 22209.

ASSOCIATION OF CONVALESCENT HOMES AND HOSPITALS FOR ASTHMATIC CHILDREN, Phoenix, Ariz, Feb 23-24, 1978. I Friedman, Exec Vice-pres, Spring Valley Rd, Ossining, NY 10562.

■ DISTRICT I MEDICAL SOCIETY, TEXAS MEDICAL ASSOCIATION, El Paso, Tex, Feb 11, 1978. Laurance N Nickey, MD, 1515 N Oregon St, El Paso, Tex 79902.

FEDERATION OF WESTERN SOCIETIES OF NEUROLOGICAL SCIENCES, INC, San Francisco, Feb 23-26, 1978. Leon G Kaseff, MD, Prog Chmn, 1783 El Camino Real, Burlingame, Calif 94010.

SOUTH CENTRAL ASSOCIATION OF BLOOD BANKS, Jackson, Miss, Feb 21-24, 1978. Marti Ginest, Exec Sec, 4300 N Lamar Blvd, Austin, Tex 78756.

■ SOUTH PLAINS CHAPTER, TEXAS ACADEMY OF FAMILY PHYSICIANS, Lubbock, Tex, Feb 25, 1978. Norma Porres, MD, Sec, 4005 24th St, Lubbock 79410.

■ TEXAS ACADEMY OF FAMILY PHYSICIANS, ALAMO CHAPTER, San Antonio, Tex, Feb 17-19, 1978. Raymond Hernandez, Jr, MD, Gen Chmn, 2200 McCullough Ave, San Antonio, Tex 78212.

WESTERN MEDICAL SOCIETY FOR THE STUDY OF TRAUMA, Steamboat Springs, Colo, Feb 18-25, 1978. AA Torre, MD, Sec-Treas, 3797 E Shields, Fresno, Calif 93728.

MARCH

AMERICAN COLLEGE OF CARDIOLOGY, Anaheim, Calif, Mar 6-9, 1978. William D Nelligan, CAE, Exec Officer, 9650 Rockville Pike, Bethesda, Md 20014.

AMERICAN SOCIETY FOR CLINICAL PHARMACOLOGY AND THERAPEUTICS, Atlanta, Mar 29-31, 1978. 1718 Gallagher Rd, Norristown, Pa 19401.

AMERICAN FERTILITY SOCIETY, New Orleans, Mar 29-Apr 1, 1978. HH Thomas, MD, Medical Dir, 1608 13th Ave S, Suite 101, Birmingham, Ala 35205.

AMERICAN PSYCHOSOMATIC SOCIETY, Washington, DC, Mar 30-Apr 1, 1978. MA Hofer, MD, Sec-Treas, 265 Nassau Rd, Roosevelt, NY 11575.

AMERICAN SOCIETY OF ABDOMINAL SURGEONS, Las Vegas, Nev, Mar 10-15, 1978. BF Alfano, MD, Exec Sec, 675 Main St, Melrose, Mass 02176.

AMERICAN SOCIETY OF REGIONAL ANESTHESIA, San Francisco, Mar 18-19, 1978. H Carron, Sec-Treas, Box 11083, Richmond, Va 23230.

ASSOCIATION FOR HOSPITAL MEDICAL EDUCATION, Atlanta, Mar 22-26, 1978. Ms GM Coleman, Admn Dir, 1911 Jefferson Davis Hwy, Suite 905, Arlington, Va 22202.

CALIFORNIA MEDICAL ASSOCIATION, San Francisco, Mar 17-22, 1978. WW Babb, Exec Dir, 731 Market St, San Francisco 94103.

INTERNATIONAL ACADEMY OF PATHOLOGY, INC, Atlanta, Mar 6-10, 1978. Leland D Stoddard, MD, Sec-Treas, Department of Pathology, Medical College of Georgia, Augusta, Ga 30902.

INTERNATIONAL ENDORADIOTHERAPY SYMPOSIUM, Los Angeles, Mar 10-12, 1978. JA Lipsett, MD, Department of Radiology, Los Angeles County-University of Southern California Medical Center, 1200 N State St, Los Angeles 90033.

INTRAOCULAR LENS SYMPOSIUM, Los Angeles, Mar 14-18, 1978. KJ Hoffer, MD, Chmn, American Intraocular Implant Society, Box 3140, Santa Monica, Calif 90403.

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY, New Orleans, Mar 19-23, 1978. Lois Neary, Exec Officer, 1430 Tulane Ave, New Orleans 70112.

■ NINTH DISTRICT DISTRICT MEDICAL SOCIETY, TEXAS MEDICAL ASSOCIATION, Crosby, Tex, Mar 23, 1978. Paul Jordan, Exec Dir, Houston Academy of Medicine, 103 Jesse H Jones Library Bldg, Houston 77030.

■ TEXAS ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS, Lakeway, Mar 2-4, 1978. William H. Nash, MD. Sec-Treas, 7711 Louis Pasteur Dr, San Antonio, Tex 78229.

APRIL

AMERICAN CLEFT PALATE ASSOCIATION, Atlanta, Apr 5-8, 1978. Mrs Flora P Berk, Admn Sec. 331 Salk Hall, University of Pittsburgh, Pittsburgh 15261.

AMERICAN COLLEGE OF ALLERGISTS, Las Vegas, Nev, Apr 1-6, 1978. 2141 14th St, Boulder, Colo 80302.

AMERICAN GERIATRICS SOCIETY, INC, Atlanta, Apr 13-14, 1978. Mrs Kathryn S Henderson, Exec Dir, 10 Columbus Circle, New York 10019.

AMERICAN COLLEGE OF PHYSICIANS, Boston, Apr 17-20, 1978. RH Moser, MD, Exec Vice-pres, 4200 Pine St, Philadelphia 19104.

AMERICAN COLLEGE OF RADIOLOGY, San Diego, Apr 9-14, 1978. WC Stronach, Exec Dir, 20 N Wacker Dr, Chicago 60606.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY, Palm Beach, Fla, Apr 25-27, 1978. RL Ruggles, MD, Exec Sec, c/o Ann Holm, 2954 Dorman Rd, Broomall, Pa 19008.

AMERICAN MEDICAL SOCIETY ON ALCOHOLISM, St Louis, Apr 27-May 3, 1978. JG Chen See, MD, Sec, 733 Third Ave, New York 10017.

■ AMERICAN MEDICAL STUDENTS ASSOCIATION-UT MEDICAL BRANCH NATIONAL STUDENT RESEARCH FORUM, Galveston, Tex, Apr 26-29, 1978. 209 Basic Sciences Bldg, UT Medical Branch, Galveston, Tex 77550.

AMERICAN PHYSIOLOGICAL SOCIETY, Atlantic City, NJ, Apr 9-14, 1978. OE Reynolds, PhD, Exec Sec-Treas, 9650 Rockville Pike, Bethesda, Md 20014.

■ HOLISTIC HEALTH ASSOCIATION, Houston, Apr 15-16, 1978. Gail Stephenson, 5001 Richmond, Houston 77056.

ILLINOIS STATE MEDICAL SOCIETY, Chicago, Apr 1-5, 1978. RN White, Exec Admn, 55 E Monroe St, Suite 3510, Chicago 60603.

MEDICAL ASSOCIATION OF GEORGIA, Jekyll Island, Ga, Apr 21-23, 1978. JM Moffett, Exec Dir, 938 Peachtree St NE, Atlanta 30309.

NEBRASKA MEDICAL ASSOCIATION, Lincoln, Neb, Apr 30-May 3, 1978. KE Neff, Exec Sec, 1901 First National Bank, Lincoln, Neb 68503.

PAN-PACIFIC SURGICAL ASSOCIATION, Honolulu, Apr 1-7, 1978. Cesar B deJesus, MD, Sec, Public Relations, Room 237, Alexander Young Bldg, Honolulu 96813.

■ SOCIETY FOR BIOMATERIALS, San Antonio, Tex, Apr 29-May 2, 1978. C William Hall, MD, Program Committee Co-Chmn, 8500 Culebra Rd, San Antonio, Tex 78284.

STATE MEDICAL SOCIETY OF WISCONSIN, Milwaukee, Apr 13-15, 1978. ER Thayer, Sec and Gen Mgr, 330 E Lakeside, Madison, Wis 53701.

TENNESSEE MEDICAL ASSOCIATION, Knoxville, Tenn, Apr 12-15, 1978. LH Williams, Exec Dir, 112 Louise Ave, Nashville, Tenn 37203.

MAY

AMERICAN ACADEMY OF FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY, Palm Beach, Fla, May 1978. ME Tardy, Jr, MD, Sec, 2800 Lake Shore Dr, Chicago 60657.

■ AMERICAN ACADEMY OF PEDIATRICS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. William S Conkling, MD, Chmn, Box 311, Navasota, Tex 77868.

AMERICAN ACADEMY OF PSYCHOANALYSIS, Atlanta, May 5-7, 1978. Ms C Bruskin, Exec Sec, 40 Gramercy Park N, New York 10010.

AMERICAN ASSOCIATION OF CLINICAL UROLOGISTS, Washington, DC, May 19-20, 1978. BH Farber, Jr, Admn Officer, 2017 Walnut St, Philadelphia 19103.

AMERICAN ASSOCIATION FOR THORACIC SURGERY, New Orleans, May 8-10, 1978. WT Maloney, Exec Sec, 6 Beacon St, Suite 620, Boston 02108.

■ AMERICAN COLLEGE OF CHEST PHYSICIANS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. Charles B Shuey, Jr, MD, Pres, 3500 Gaston Ave, Dallas 75246.

AMERICAN COLLEGE OF LEGAL MEDICINE, San Francisco, May 5-7, 1978. Ms B Hanna, Exec Sec, 1340 N Astor St, Suite 2608, Chicago 60610.

AMERICAN LUNG ASSOCIATION, Boston, May 14-17, 1978. WF Roberts, Acting Mng Dir, 1740 Broadway, New York 10019.

AMERICAN PEDIATRIC SURGICAL ASSOCIATION, Hot Springs, Va, May 3-6, 1978. JA O'Neill, Jr, MD, Sec, Department of Pediatric Surgery, Vanderbilt University Hospital, Nashville, Tenn 37232.

AMERICAN PSYCHIATRIC ASSOCIATION, Atlanta, May 8-12, 1978. Dr M Sabshin, Med Dir, 1700 18th St NW, Washington, DC 20009.

AMERICAN PSYCHOANALYTIC ASSOCIATION, Atlanta, May 3-7, 1978. Ms H Fischer, Admn Dir, One E 57th St, New York 10022.

AMERICAN SOCIETY FOR GASTROINTESTINAL, Las Vegas, Nev, May 24, 1978. WT Maloney, Exec Sec, 6 Beacon St, Suite 620, Boston 02108.

AMERICAN SOCIETY OF INTERNAL MEDICINE, San Francisco, May 4-7, 1978. WR Ramsey, Exec Dir, 535 Central Tower Bldg, 703 Market St, San Francisco 94103.

■ FLYING PHYSICIANS ASSOCIATION, TEXAS CHAPTER, San Antonio, Tex, May 11, 1978. M Young Stokes III, MD, Pres, 331 W Morton St, Denison 75020.

■ INTERNATIONAL COLLEGE OF SURGEONS, TEXAS STATE SURGICAL DIVISION, San Antonio, Tex, May 11, 1978. Vincent T Caldarola, MD, Pres, 1001 Rosa Verde Towers, San Antonio, Tex 78205.

OKLAHOMA STATE MEDICAL ASSOCIATION, Oklahoma City, May 4-7, 1978. D Bickham, Exec Dir, 601 NW Expressway, Oklahoma City 73118.

SOCIETY OF BIOLOGICAL PSYCHIATRY, Atlanta, May 4-7, 1978. Dr AW Epstein, Sec-Treas, 1430 Tulane Ave, New Orleans 70112.

■ TEXAS AIR-MEDICS ASSOCIATION, San Antonio, Tex, May 11, 1978. David F Eanes, Jr, MD, Pres, 518 N Fifth St, Temple, Tex 76501.

■ TEXAS ASSOCIATION OF NEUROLOGICAL SURGEONS, San Antonio, Tex, May 12, 1978. Robert A Partain III, MD, Vice-Pres & Prog Chmn, 510 Madison Professional Bldg, San Antonio, Tex 78215.

■ TEXAS ASSOCIATION OF PHYSICIANS IN NUCLEAR MEDICINE, San Antonio, Tex, May 13, 1978. Stanley E Hodges, Jr, MD, Pres, 3434 Swiss Ave #20, Dallas 75204.

■ TEXAS ASSOCIATION OF PUBLIC HEALTH PHYSICIANS, San Antonio, Tex, May 11, 1978. John L Bradley, MD, Pres, Box 10736, El Paso, Tex 79997.

■ TEXAS DERMATOLOGICAL SOCIETY, San Antonio, Tex, May 12, 1978. James H Strauch, MD, Prog Chmn, 4K Medical Professional Bldg, San Antonio, Tex 78212.

■ TEXAS DIABETES AND ENDOCRINE ASSOCIATION, San Antonio, Tex, May 12, 1978. Jaime A Davidson, MD, Vice-Pres, 301 W Colorado, Dallas 75208.

■ **TEXAS MEDICAL ASSOCIATION, Annual Session, San Antonio, Tex, May 10-14, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.**

■ TEXAS NEUROLOGICAL SOCIETY, San Antonio, Tex, May 12, 1978. Harold Skaggs, Jr, MD, Pres, 801 W 34th St, Austin, Tex 78705.

■ TEXAS OCCUPATIONAL MEDICAL ASSOCIATION, San Antonio, Tex, May 11, 1978. Joseph F Peters, Jr, MD, Pres, Box 1616, Cleburne, Tex 76031.

■ TEXAS OPHTHALMOLOGICAL ASSOCIATION, San Antonio, Tex, May 12, 1978. Rodolfo E Margo, MD, Pres, Mid-Valley Medical Arts Building, Weslaco, Tex 78596.

■ TEXAS ORTHOPAEDIC ASSOCIATION, San Antonio, Tex, May 13, 1978. David P Green, MD, Prog Chmn, Division of Orthopaedic Surgery, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio, Tex 78284.

■ TEXAS OTOLARYNGOLOGICAL ASSOCIATION, San Antonio, Tex, May 12, 1978. Bernard L Yollick, MD, Vice-Pres, 5925 Forest Lane, Dallas 75230.

■ TEXAS PHYSICAL MEDICINE & REHABILITATION SOCIETY, San Antonio, Tex, May 12, 1978. Kenneth B Washburn, MD, Sec, 7703 Floyd Curl Dr, San Antonio, Tex 78284.

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AMERICAN CANCER SOCIETY, INC, Seattle, Jun 29-Jul 1, 1978. 777 Third Ave, New York 10017.

AMERICAN DIABETES ASSOCIATION, Boston, Jun 11-13, 1978. JL Dugan, Jr, Exec Vice-Pres, 600 Fifth Ave, New York 10020.

AMERICAN MEDICAL ASSOCIATION, Annual Convention, St Louis, Jun 17-22, 1978. 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Louis, Jun 14-18, 1978. Ms L Loesel, Exec Dir, 1740 Broadway, New York 10019.

ROCKY MOUNTAIN NEUROSURGICAL SOCIETY, INC, Colorado Springs, Colo, Jun 11-14, 1978. Harry Starr, MD, 3260 Fannin St, Beaumont, Tex 77701.

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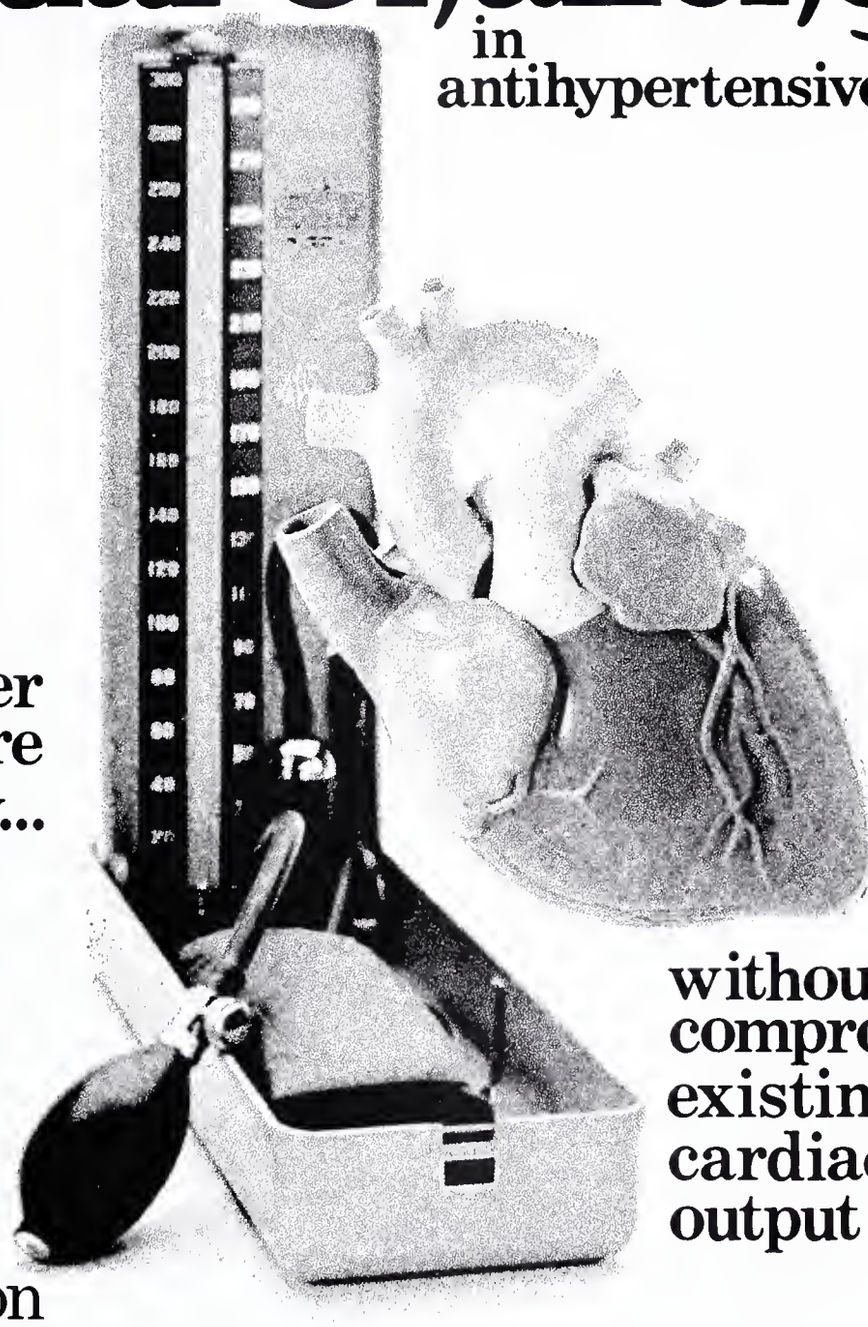

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It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

For a brief summary of prescribing information, please see following page.

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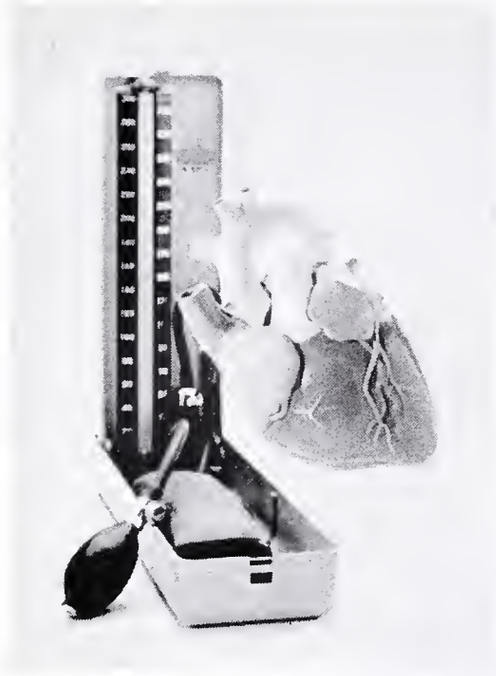

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Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, occasionally with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Pregnancy and Nursing: Use of any drug in women who are or may become pregnant or intend to nurse requires that anticipated benefits be weighed against possible risks; possibility of fetal injury or injury to a nursing infant cannot be excluded. Methyldopa crosses the placental barrier, appears in cord blood, and appears in breast milk.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: urinary uric acid by the phosphotungstate method, serum creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia. Positive tests for antinuclear antibody, LE cells, and rheumatoid factor.

Allergic: Drug-related fever, lupus-like syndrome, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third months of therapy; increased dosage or adding a diuretic frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

How Supplied: Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 500.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

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BRIEF SUMMARY OF
PRESCRIBING INFORMATION

ANTIMINTH® (pyrantel pamoate)
ORAL SUSPENSION

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 μg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions: Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

More detailed professional information available on request.

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ORAL SUSPENSION

a drug of choice in pinworm infections

Please see brief summary of prescribing information on facing page.

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Kaon® Elixir
(potassium gluconate)

Kaon® Tabs
(potassium gluconate)

BRIEF SUMMARY
Kaon Tablets/Kaon Elixir

KAON® (potassium gluconate) TABLETS

Description: Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
Warning: There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
Precautions: In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

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1954
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tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

Adverse Reactions: Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

KAON® (potassium gluconate) ELIXIR

Description: Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

Indications: See Kaon Tablets.

Precautions: See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

Adverse Reactions: See Kaon Tablets.

Overdosage: See Kaon Tablets.

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8 **New Doctor's Kit** (OP-458) $10.00
Contains: **The Business Side of Medical Practice; Planning Guide for Physicians' Medical Facilities; AMA Publications Lists; Group Practice Guidelines; Current Procedural Terminology** order form; Uniform Health Insurance Claim Form; **Medicolegal Forms; Talking with Patients; Preparing a Patient Information Booklet;** AMA membership information; Placement Service; and bibliography on billing systems, recording keeping systems, etc.

9 **Group Practice Kit** (OP-457) $7.50
Contains: **Group Practice Guidelines; Professional Corporations in Perspective;** medicolegal reprints on such subjects as: professional liability, confidentiality, informed consent, etc.; samples of model legal agreements for a physician and employed associate, office sharing, medical partnerships, and forming a corporation.

Breast reconstruction: how the general surgeon can help the plastic surgeon

T. M. Biggs, MD; J. Upton, MD; T. D. Cronin, MD

More and more women are demanding breast reconstruction after mutilating mastectomy procedures. Cooperation between the surgeons performing mastectomies and the plastic surgeon, with a clear understanding of the goals and objectives of each, is essential. A list of seven ways in which the general surgeon can help the plastic surgeon is presented. All or none of these considerations may be incorporated into the breast surgeon's armamentarium, depending upon their consistency with his specific operation for a specific breast tumor.

With the advent of early cancer detection centers, xerography, and a heightened public awareness of breast self-examination, breast cancers are being detected and mastectomies are being performed much earlier in the natural course of the disease. Indeed, a 1.5 cm stage I cancer is now viewed as a tumor late in its biologic development. As some general surgeons[6,9,18,20,26] have accepted lesser operations, such as the modified radical, simple, and partial mastectomies, more and more women have been consulting the plastic surgeon for postmastectomy reconstruction. Using improved plastic surgical techniques and the Cronin Silastic gel implant, reconstructions are being performed on patients who have had extensive mastectomies.

The plastic surgeon may be confronted with a myriad of possible deformities which he must correct using available autogenous or alloplastic materials. The conspicuous subclavicular hollow with loss of the anterior axillary fold are the two most aggravating deformities to these women, who no longer may be able to wear their accustomed clothing. Unfortunately, these two defects are much more difficult to repair satisfactorily than the loss of mound and midline cleavage, the extensive scars, the loss of the nipple-areolar complex, and the general tightness across the breast.

It is certainly not the place of the plastic surgeon to tell the general surgeon how or how not to do his cancer operation. Fig 1 is a list of technical suggestions which evolved out of our joint efforts with general surgeons treating breast cancers. These considerations may be useful to the general surgeon *if* they are consistent with his specific cancer operation.

Direction of Incision (Fig 2)

The classic Halsted incision with its multiple variations is still used most frequently by breast surgeons.[17] Large amounts of breast and chest wall skin may be excised in a horizontal direction, creating large portions of redundant skin which the surgeon may pursue into the axilla superiorly and down to the umbilicus inferiorly. A transverse incision is preferred by the reconstructive surgeon because it preserves more tissue, does not create axillary web contractures, is aesthetically more acceptable, and lends itself more effectively in reconstructive procedures. The Stewart type of incision can be extended up into the mid-axillary line to provide adequate exposure during mastectomy.

Preservation of Pectoralis Muscles (Fig 3)

We have been impressed by the difficulty with which the subclavicular hollow is reconstructed. Preservation of the entire pectoralis major muscle, or simply the clavicular head with excision of the major

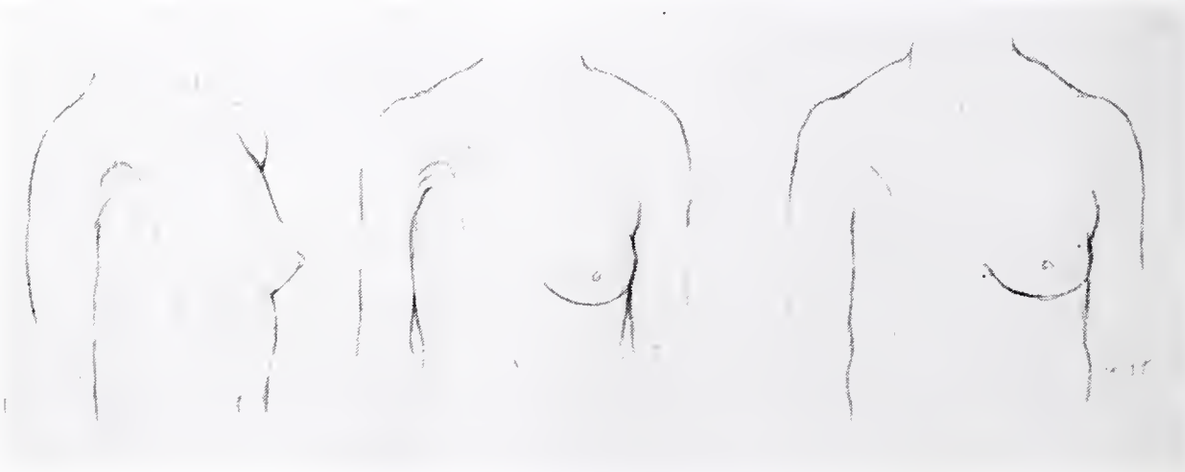
1. Direction of incision
2. Preservation of pectoral muscles
3. Preservation of nipple/areolar complex
4. Thick skin flaps
5. Meticulous closure
6. Drain sites
7. Early reconstruction

1. Considerations in initial cancer surgery.

portion of the muscle in continuity with Rotter's nodes, would eliminate the need to reconstruct this area. In this controversial area, many general surgeons believe that adequate dissection of level 1, 2, and 3 axillary nodes is possible with excision of the pectoralis minor and the clavipectoral fascia, with preservation of the pectoralis major muscle.

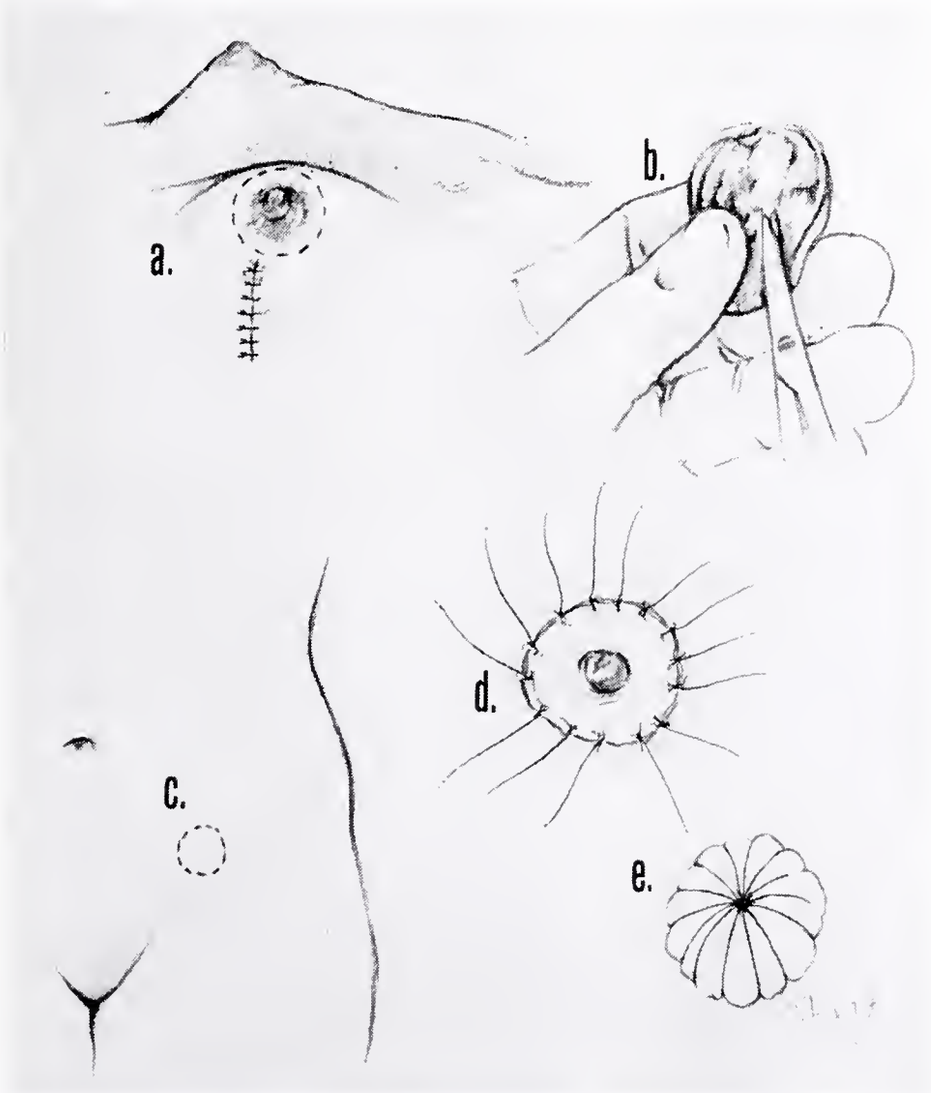
2. Direction of incision: Halsted (left), Orr (middle), and Stewart (right) incisions.

3. Preservation of pectoral muscles. Left and middle demonstrate the extensive subclavicular and axillary hollow defects left after excision of both pectoral muscles. Halsted incision has been extended almost to the umbilicus to excise redundancies. Right: After preservation of all or clavicular head of the pectoralis major.



Preservation of Nipple-areolar Complex (Fig 4)

Although many techniques for reconstruction of the nipple-areolar complex utilizing distant tissue are available, the most satisfactory sources of tissue are the nipple and areola themselves. For tumors away from and not involving the nipple-areolar complex, the alternative illustrated in Fig 4 is suggested. After the pathologist confirms the presence of breast carcinoma, the nipple with its areola is removed as a split thickness skin graft. If a frozen section report on the nipple-areolar area of the breast mass is negative, an appropriate area in the groin lateral to the hair bearing mons



4. Preservation of nipple-areolar complex. (a) After positive diagnosis of a malignancy has been obtained, the nipple and areola are removed as a full thickness skin graft. (b) If multiple biopsies of the underside are negative for tumor, an appropriate area in the groin is de-epithelialized. (d, e) The nipple-areolar graft is implanted under a bolster stent.

pubis is de-epithelialized and the graft is "banked." It is imperative that only epidermis and upper layers of dermis are removed, and the graft is placed on a dermal bed with the sutures left long and tied over a bolster stent. If the possibility of implanting tumor cells in the groin is of major concern to the surgeon, the nipple may be left with the breast and only the areola, which does not contain ductal elements, may be removed for implantation. The banked tissue can later be retransplanted to the reconstructed breast mound.

Generous Thick Skin Flaps

Many mastectomy techniques advocate meticulous dissection of subcutaneous fat from the mastectomy flaps in order to eliminate lymphatic spread.[16] Such a flap, devoid of its major blood supply from the dermal plexus, becomes a large, free, full-thickness skin graft. These flaps, without supporting dermis or subcutaneous fat, are unsuitable covers for alloplastic Silastic implants which often extrude. If reconstruction is anticipated, as much subcutaneous fat as possible must be left.[5] Unnecessarily wide excision of skin flaps also should be avoided, giving rationale for cutting thick skin flaps in preference to skin grafting.

Meticulous Closure

Although extensive and unsightly scars have been mentioned as one of the least deforming defects in the postmastectomy patient, hypertrophic and distracted scars with wide crosshatching are very conspicuous to these women, who often equate the quality of this scar to the quality of their mastectomy operation. Although accepting the necessity for loss of the breast, we find that many women complain bitterly of the ugly, crosshatched scar, and ask why the surgeon could not have done better. A typical closure utilizing broadly spaced, tight, interrupted sutures is shown in Fig 5. A reasonable alternative using intradermal, buried sutures to distribute the tension, an intradermal running nylon suture, and external Steri-Strips to coapt the skin edges, is suggested on the right. It should be emphasized that wide crosshatching can never be completely eliminated with scar revisions. These scars can easily be avoided by simple alteration of technique, gentle tissue manipulation and meticulous closure. In situations where mastectomy flaps will not come together without seriously compromising the circulation, the central defect should be covered with a split skin graft. Local or distant flaps may be rotated at a later date to provide adequate cover for a reconstruction.

Drain Sites

After drains placed percutaneously beneath skin flaps have been pulled, a small sinus is left in the skin which heals by secondary intention. A thick band of collagen often fixes the epidermis above to the chest wall structure beneath it, creating a crater or a pucker in the soft tissue flap. The only part of a Hemovac drain which needs to be in a dependent position is the fenestrated portion of the tubing through which the serous exudate and blood is evacuated. We suggest that the mastectomy surgeon utilize the surgical incision he has already created for his drain exit points. Drains placed medially in the parasternal area leave scars which will keep women from wearing open-necked clothing. They may also become quite hypertrophic close to the midline. Those placed far lateral in the posterior axillary line may form large craters, as the soft tissue in this area has more mobility than anteriorly. Drain sites placed inferiorly between the lower portion of the incision in the umbilicus may restrict

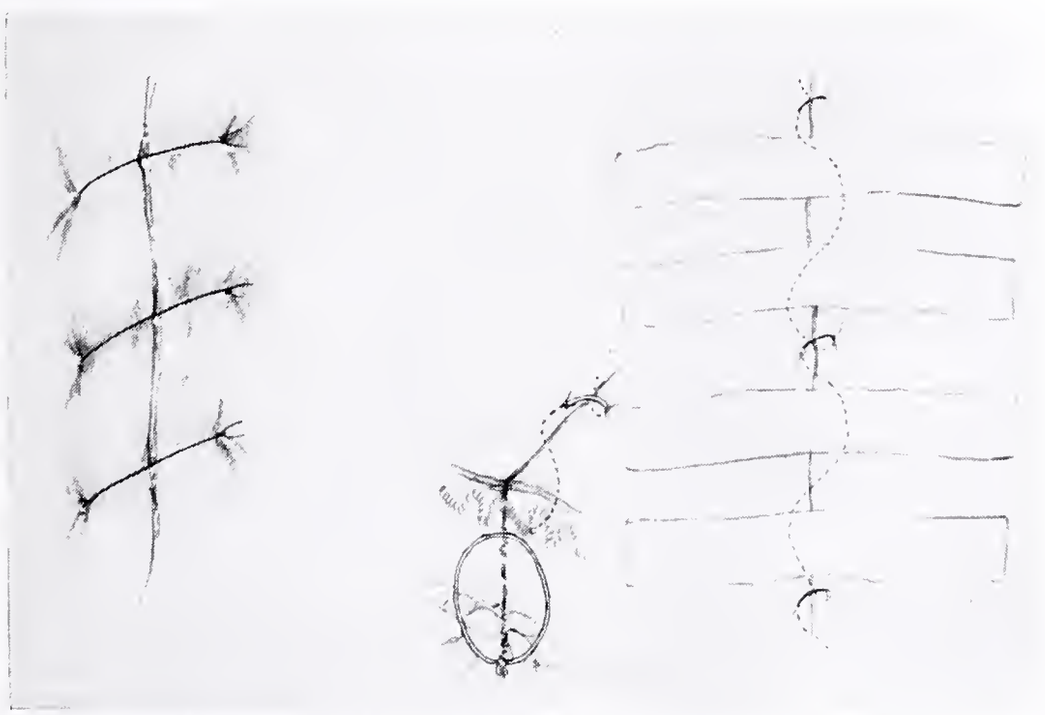
the design of a medially based thoraco-epigastric flap, which is often necessary for breast reconstruction after a full radical mastectomy.

Early Reconstruction

The psychologic deprivation and subsequent postoperative depression in *some* mastectomy patients is legend to all breast surgeons.[19] We feel strongly that properly motivated patients should be referred for consultation soon after their mastectomy procedure, or preferably even before the mastectomy. Although we have reconstructed the breast mound at the time of initial mastectomy, or within the first postoperative week with suprapectoral or subpectoral silicone prostheses, we now believe that the most appropriate time to start reconstruction is at least several months later, when the skin wound is healed and the soft tissues are soft and pliable. (In another controversial area, there is no evidence that chest wall recurrence of tumor is masked by reconstruction.) Indeed, if a woman desires reconstruction, is properly motivated, and is a good surgical candidate, she should not be obligated to bear a psychological burden for 10 or 20 years before her cancer surgeon declares her tumor is cured.

Irradiation

This adjunctive mode of therapy is being employed much more frequently in the multidisciplinary approach to breast cancer. In the past, postradiation dermatitis and osteoradionecrosis of the chest wall with attendant wound healing problems had been seen frequently by the plastic surgeon. We emphasize that high dose, penetrating irradiation can still alter skin physiology, making reconstruction more complicated. Postoperative irradiation is *not*, however, an absolute contraindication to reconstruction. Present day techniques of irradiation with cobalt therapy seem to cause minimal



5. Meticulous closure. Left: Tight skin closure with broadly placed interrupted sutures. Inset and right: Tension is distributed with intradermal, buried sutures and skin edges are coapted with a subcuticular, running suture and external Steri-Strips.

skin damage so that reconstructive procedures usually are possible.

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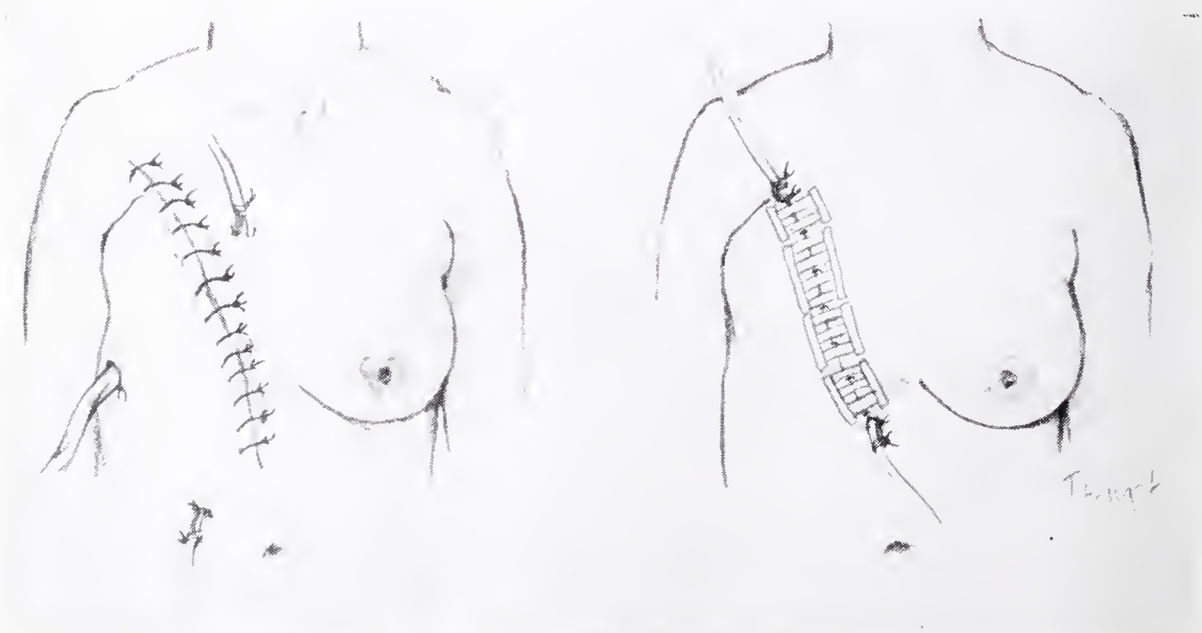

6. Drain sites: Left: Commonly used drain exit sites. Right: Alternatives utilizing the surgical wound.

Payment procedures for medical examinations of rape victims in Houston

Linda Cryer, MSW, Kenneth L. Mattox, MD

The Houston City Health Department and the Houston Police Department have designed efficient, comprehensive procedures which minimize physician involvement in billing and paperwork and maximize law enforcement agency reimbursement of physician, emergency room, and laboratory fees related to obtaining legal evidence used in courtroom proceedings.

Rape covers many disparate behaviors of both the offender and the victim, ranging from preying upon the naivete of small children to extreme physical and mental cruelty accompanying forced sexual cooperation. It can be the most traumatic event in the lives of its victims and their families. Public attention recently has focused on the medicolegal aspects of this crime, and standard protocols have developed which facilitate improvement in medical evidence collection and enhance prosecution.[1-6] Throughout the country, criminal statutes are being amended in recognition of the psycho-bio-social consequences of rape. Model legislation enacted in Illinois requires that hospitals within the state provide emergency care for rape victims and establishes minimum requirements for hospitals providing such services.[7]

On June 11, 1973, the 63rd Texas State Legislature enacted HB 857 involving payment of costs for medical examination of rape victims as follows:

Section 1: Any law enforcement agency that requests a medical examination of a victim of an alleged rape for use in the investigation or prosecution of the offense shall pay all costs of the examination.

Section 2: This Act does not require a law enforcement agency to pay any costs of treatment for injuries.[8]

In compliance with this law, the City of Houston has developed procedures to minimize physician involvement in billing and paperwork and maximize law enforcement agency reimbursement of appropriate medical examination fees. These procedures for handling administration and appropriating necessary funds can be instituted by any medical service provider concomitant with the political structure and law enforcement agency of jurisdiction.

City Ordinance

In 1976, rape cases reported to the Houston Police Department averaged 90 per month. FBI statistics indicate that at least four times as many sexual assaults are unreported.[9] Therefore, at least 4,320 rapes per year are committed in Houston.

In compliance with state law, the Houston City Council on March 11, 1975, passed an ordinance containing three important sections:

Section 1: A. Rape as defined in the Texas Penal Code states "a person commits an offense if he has sexual intercourse with a female not his wife without the female's consent."[10] Sexual intercourse is defined as "any penetration of the female sex organ by the male sex organ." If the victim experiences only anal or oral sodomy, or is a male, the criminal offense is sexual abuse and not covered under the rape statute. Therefore, medical payment procedures have not been instituted.

B. Medical examination as used in this ordinance includes a medical examination and all laboratory tests related to the alleged offense. The victim may be examined in a hospital, clinic or private physician's office.

Section 2: The Chief of the Police Department or his designated representative is authorized to initiate a voucher for the payment of medical examinations that are requested by an authorized member of such department.

Section 3: No payment of a voucher for the cost of a medical examination shall be made without the approval of the Director of the Department of Public Health or his designated representative. The Director shall review all payments for the appropriateness of the medical procedures and tests performed and the costs thereof. Such review shall be based on generally accepted medical standards for such procedures and fees.

Procedures

As a result of the city ordinance, the administrator of the Rape Treatment, Detection, Prevention Program; the chief of Chronic Illness of the Health Department; and representatives of the Houston Police Department and the city controller's office developed the following procedures to effect implementation:

Fig 1.

AFFIDAVIT

_____
(Date)

I, _____, certify that I have been

examined by Dr. _____ at
(Physician)

_____ as a result of the
(Hospital)

criminal offense of rape having occurred on _____.
(Date)

I have reported this offense to the Houston Police Department.

I authorize the release of all medical reports, and/or hospital records necessary to complete billing procedures.

_____
(Victim's Signature)

_____
(Address)

OFFICER'S VERIFICATION

_____ has reported the above offense
(Victim)

to this department under Case #_____.

_____
(Officer)

_____
(Bureau Commander)

_____
(Chief of Police)

1. In the 22 Houston hospital emergency rooms and clinics which currently examine rape victims, the woman is given a written explanation of the state law, city ordinance, and procedures to follow to initiate city payments.

2. The rape victim must report the crime and sign an affidavit (Fig 1) in the homicide or juvenile division of the Houston Police Department stating when she was raped, who examined her, and what medical facility was involved. This affidavit authorizes the release of all records needed to complete billing procedures.

3. The affidavit is then sent to the victim's private physician or appropriate medical facility with a written explanation of the law and billing procedures (Fig 2). This satisfies the statute's requirement that a law enforcement agency request the medical examination.

4. The private physician or medical facility will send the affidavit and bill for services rendered to the director of the City Health Department's Chronic Illness Control Division.

5. The chief of Chronic Illness will approve appropriate charges and route the information for voucher attachment to the controller's office, where payment is issued.

Results

More than two years' experience has shown that, as anticipated, these procedures minimize physician involvement in billing and paperwork and maximize law enforcement agency reimbursement of appropriate medical examination fees. After the victim's completed affidavit is sent to the physician and/or hospital billing section, medical staff need only route the appropriate papers to the City Health

EXPLANATION OF PAYMENT OF MEDICAL COSTS
FOR VICTIMS OF RAPE

City Health Department

Attached is a copy of a Houston Police Department Form indicating that one of your patients has reported being a victim of rape and authorizes you to release all medical reports and/or hospital records necessary for us to complete billing procedures.

This is in compliance with State Law (HB 857) approved on June 11, 1973, and a Houston City Ordinance passed on March 11, 1975. This Law states that any law enforcement agency that requests a medical examination of a victim of rape for use in the investigation or prosecution of the offense shall pay all costs of the examination.

The Houston Police Department will pick up the following charges incurred due to the handling of medical evidence:

—physician services

—emergency room costs

—laboratory fees

The police department cannot pay for the treatment of any injuries resulting from the rape.

Please submit the affidavit with the victim's signature along with a bill itemizing the charges to the following address:

Chief, Chronic Illness Control Division
City Health Department
1115 North MacGregor
Houston, Texas 77030

The charges will be monitored by the Chief of the Chronic Illness Control Division of the City Health Department. Once the charges are approved, a voucher will be routed to the Controller's office for payment to you.

Thank you for your cooperation.

Fig 2.

Department to complete their responsibility in the process.

The City Health Department normally certifies payment for emergency room usage, physician services, x-ray, and laboratory procedures related to evidence used in court.

Laboratory procedures used as courtroom evidence include saline wet mount and venereal disease determinations. The state law does not authorize reimbursement of laboratory fees related to treatment of injuries, including antibiotics, pregnancy prophylaxis, and antiemetics.

The Houston Gynecological and Obstetrical Society has assisted in recommending standards for medical procedures and fees. Emergency room fees range from $15 to $25; physician costs, from no charge to $15 at a county hospital, and up to $50 at private hospitals and clinics; and laboratory fees, from $3 to $20.

Discussion

The administrator of the Rape Treatment, Detection, Prevention Program informs medical facilities and private physicians of the state law, city ordinance, and procedures available for facilitating payment and handling problems in billing procedures.

Hospitals or private physicians are requested not to bill the patient for two weeks following the examination to determine if the victim has reported the crime to the Houston Police Department and signed an affidavit. If an affidavit is not received within two weeks, the private physician and/or hospital involved can bill the victim directly. Should a rape victim pay the hospital and/or private physician directly, she still can be reimbursed by the city if she reports the crime to the Police Department.

Conclusions

With the dramatically increasing incidence of rape all over the country, Houston's standardization of procedures for payment for medical examinations used as legal evidence establishes a precedent.

The state law, city ordinance, and resulting administrative procedures could be extended to medical practices involved in gathering evidence for other violent crimes. Physicians and hospitals can provide a leadership role by cooperating with criminal justice agencies and legislators to plan laws and procedures to implement similar or more comprehensive systems.

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Private industry's response to rising health care costs

William C. Park, Jr, MBA

Actual cost and projected trends in health care expenditures, combined with pressures to increase employee benefits packages, have triggered a response in the private business sector. The nation's major employers have answered with responses ranging from providing alternative delivery systems to teaching employees how to better use the existing system. This article summarizes some strategies of major industries purchasing medical care.

American big business has purchased medical care for many years via group health plans without questioning the quality, necessity, or cost of the product its employees are receiving.[1]

Today, major employers such as Ford Motor Co and General Motors Corp are concerned not only with the high cost of medical care, but also with the upward trend which has exceeded the consumer price index for the past several years.[2] Private industry is beginning to take action as a corporate consumer of medical care services.

Between 1965 and 1975 expenditures for personal health care under private insurance plans increased from $8.3 billion to $27.3 billion—a 229% jump. Approximately 80% of all health insurance premiums are paid through employment-related group insurance plans.

The employer pays, on the average, 67% of the total premium. In 41% of industry-purchased policies, the employer pays the total premium.[3]

The National Association of Manufacturers surveyed 350 of its 13,000 member companies and found the employer's share of premium payment to be 93%. This amounts to an average 6% of the total payroll expenditures for the manufacturing companies surveyed.[1]

Victor Zink of General Motors Corp states, "Blue Cross-Blue Shield plans are our number one supplier, if you take them all together. Metropolitan Life Insurance Co is our number two supplier and US Steel Corp is a rather distant third." General Motors Corp had a total insurance bill of $825 million in 1976.[4] Ford Motor Co spent $298 million on medical and dental care in 1975. This equals $119 per vehicle produced or about $1,700 for every working hourly employee. In 1965, Ford spent $340 per employee for health care.

In response to the upward trend of health care costs, industry states that the problem cannot be handled by government alone.

A Ford spokesman comments:

> Ford Motor Company has been adversely affected by health care cost escalation. These rapidly rising costs are of serious concern . . . causing Ford to allocate funds from other important operating objectives . . . Problems may be amenable in the long run only if all interested parties work together toward reasonable solutions. We do not believe that the long term solution to cost escalation can be mandated.[6]

In an effort to match concern with action, major employers are moving actively to understand and to respond to the medical market. The problems industry faces with the medical care system require a different approach than those related to overall inflation which has escalated other costs. The peculiar structure of the health care industry makes it atypical or nonresponsive to the pressures of traditional marketplace economics.

Among the complexities of the health care system are a predominance of pay-

ments by the government and private third parties, tax incentives for increased care,[7] lack of constructive competition, uninformed consumers (employees), and an emphasis on high-cost technology. These factors are compounded by increased demand and expectation on the part of nonsalaried employees for more comprehensive benefit plans.

In analyzing these problems, corporations have neither named a scapegoat nor selected a group to attack.

Instead, a number of positive strategies have been developed. There is a strong trend toward more organizational activity and increased cooperation between corporations in meeting the cost problem. The nation's largest and most powerful companies are beginning to practice corporate consumerism in the planning and implementation of medical care strategies and programs.

Positive strategies include collective endorsement for a national health policy, provision of education for health improvement, and arrangement/provision of alternate medical delivery systems for employees. Examples of corporate buying may be seen in a number of important areas in the health care system.[8]

National Health Policy

Organizations such as the National Association of Manufacturers operate at a national level in seeking solutions to escalating costs. The manufacturers have recommended an eight-part program to reduce health care costs for members and their employees:

1. Development of sufficient cost-sharing mechanisms to stimulate cost consciousness on the part of the patient.
2. Development of prospective rate setting and other workable incentive systems for increased efficiency in hospital administration.
3. Expanded coverage for outpatient services under employer-sponsored health plans.
4. Participation by industry representatives in the health planning process at all levels.
5. Thorough testing of new technology and procedures before widespread use by the medical professions.
6. Expanded efforts to educate the public to effects of frivolous malpractice suits and what it should realistically expect from the medical profession.
7. Increased efforts by the medical profession to equalize distribution of doctors by specialty and to increase the use of well-trained midlevel health professionals.
8. Cost control and reform of Medicare and Medicaid such as that introduced in S 3205 by Sen Herman Talmadge.

The Washington Business Group on Health was organized in 1974 in response to the inordinate cost of health care to employers. This organization has more than 200 group members representing 20 million employees, retired employees, and dependents covered by industry health plans. The major objectives of this organization include increasing involvement of business leaders in health policy issues and providing accurate and timely information to and from member companies about innovative health programs.[9] The organization has increased the employers' ability to share innovative approaches, and it may prove to be a significant voice in development of a national health policy.

Regional Involvement in Health Planning

Health Systems Agencies are the federally mandated (PL 93-641) regional commissions that must approve new health projects or programs. These organizations are made up of consumers and providers of health care and must give their stamp of approval before funding is provided for specific federal health programs. An active interest of these bodies generally is the attempt to control overbuilding and duplication of services.

General Motors Corp has sponsored seminars about cost containment and medical economics for corporate executives who are on boards of hospitals, Blue Cross-Blue Shield, or Health Systems Agencies. The company has also been aggressive in obtaining corporate representation on Health Systems Agency boards. Other companies and groups with similar programs include Ford Motor Co, Chrysler Corp, United Auto Workers, and a conglomerate of various Pittsburgh industries.

Alternative Delivery Systems

A more direct way to attack costs is by controlling the system more closely or becoming the supplier of service. By affiliating with or initiating a Health Maintenance Organization (HMO), Foundation for Medical Care, or other prepaid group model, a company is seeking primarily lower hospital utilization patterns which are often characteristic of these delivery systems. A growing number of companies are confident that the high start-up cost in an HMO will pay off in lower total medical bills by lowering utilization of emergency rooms for primary care and cutting hospital bed utilization while encouraging outpatient diagnosis and treatment.

R. J. Reynolds Industries in North Carolina has spent more than $2 million to begin a prepaid health plan. Without government aid or active involvement from other industry, the company has opened the plan to its employees. R. J. Reynolds Industries had 21,000 applications for its first 6,000 openings.

Prudential Insurance Co offers HMO coverage in lieu of major medical plans in six major cities, including Houston, through its own Pru-Care. Other companies presently sponsoring a plan or offering an HMO option include Scott Paper Co, 3-M, Honeywell, Pillsbury Co, General Mills Inc, Uniroyal Inc, Republic Steel Corp,* Shell (in California and Oregon),* and Standard Oil of California,* American Telephone and Telegraph, * Xerox, * and American Can Co.[10]

Claims Review

Retrospective review of insurance claims is used to eliminate abuses by control of payments for unnecessary treatment, hospitalization, or unreasonable charges. When claims are questioned, justifications are required before payment will be made. This method of cost containment enforces policy contract provisions and is used by AMF, United Mine Workers of America, Burlington Industries, Continental Can, and TWA.

Medical Peer Review

Groups of doctors, through medical societies or medical foundations, contract with industry and government to insure proper quality and reasonable utilization of medical resources. Generally, patients are reviewed while in the hospital to determine the necessity of admission and continued inpatient stay based on reasonable community practice, as judged by

*Does not sponsor an HMO but offers options to conventional coverage.

medical peers. The peer review mechanism neither recommends discharge nor questions charges. However, it may recommend against payment for services deemed unnecessary. Caterpillar Tractor Co, B. F. Goodrich, Greyhound, and Procter and Gamble, all have hospital review programs during hospital stay.

Chrysler Corporation, New York State and New York City, and Pennsylvania Blue Shield and Capitol Blue Cross have programs of surgical second opinions or prospective review of nonemergency surgery.

Improved Coverage

Striking at hospital costs, a number of industries have initiated or encouraged coverage and facilities that can provide adequate nonhospital treatment.

Shell Oil Co has sponsored ambulatory surgical-center coverage for all employees under Shell's hospital/surgical/medical plans since Jan 1, 1976. There is no patient-incurred deductible for expenses in an ambulatory-surgical center, whereas there is a deductible for hospital expense.

Burlington Industries, Inc, in 1974 instituted a change in its health coverage designed to encourage ambulatory instead of in-hospital care whenever possible. Outpatient benefits were liberalized and employees were given a booklet and a voice-slide presentation that encouraged them to seek outpatient care, ask providers about cost, and submit claims promptly.

Other companies using similar programs are Babcock and Wilcox Co, Campbell Soup Co, Firestone Tire and Rubber Co, General Foods, General Motors Corp, H. J. Heinz, Procter and Gamble, Pullman Inc, and Standard Oil Co of California.

Employee Education

Possibly the most inexpensive and hardest to evaluate approach is an attempt to reduce costs through employee education. Information is provided on a range of topics from nutrition and self-care to proper utilization of the medical care system. Borden, Firestone, Pittsburgh Plate Glass, United Auto Workers, and Burlington Industries use these programs in an attempt to influence employee behavior in a positive fashion and thus to reduce the need for and use of expensive medical care.

To detect health problems early, screening programs are combined with employee education. These programs are more costly than the educational approach, but can concentrate on a particular problem or provide additional incentive for employees to heed the educational program.

Allied Chemical, Alcoa, Babcock and Wilcox Co, General Mills, The Equitable, B. F. Goodrich, IBM, Mobil Oil Corp, Shell Oil, and Xerox provide physical examinations or multiphasic screening with follow-up programs for their employees.

Conclusion

Actual costs and projected trends in health care expenditures, combined with pressures to increase employee benefits packages, have triggered a strong response in the private business sector. Responses range from providing alternative delivery systems to teaching employees how to better use the existing system.

While the individual impact of even a large individual corporation may be minimal on the medical system as a whole, innovations introduced by these leaders of industry are beginning to provide a base for joint efforts by large and small businesses. As companies ask the right questions, collect data, and analyze their plans, they will be in a position to compare the alternatives and make better choices.

No single solution will work. Companies of all sizes will look toward some combination of actions which can slow the cost spiral and still provide adequate fringe benefits. With sound utilization and cost information, a company is in a position to ask how—not if—it wants to attack the medical cost escalation problem. Once this decision is reached by a wide range of companies or groups of companies, the corporate consumer can and will have a far-reaching influence on the medical care system of the country.

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Material for *Texas Medicine* may be sent to the Executive Editor, 1905 North Lamar Blvd., Austin 78705. It must be offered solely to this journal. Each article is reviewed by a consultant specialist and an editorial board, and is accepted or rejected on the basis of its individual merit and the availability of other material. Reviews usually take six to eight weeks.

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Titles should include the words most suitable for indexing the article in "Index Medicus," should stress the main point, and should be brief. Subtitles should not be connected grammatically with the main title.

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Text should be narrative with complete sentences, few abbreviations, and logical subheadings. For spelling and usage the editors follow "Dorland's Illustrated Medical Dictionary," 25th edition, and "Webster's Third New International Dictionary, Unabridged."

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Reference lists should contain in this order (1) author's last name, initials, (2) title of article or book, (3) name of journal, (4) volume and inclusive page numbers, written 33:156-160, (5) year. For books, the title should be followed by place of publication, name of publisher, and year.

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Illustrations should be black and white drawings or positive photographs, with neat, uniform, fairly large lettering. A label pasted to the back of each illustration should indicate its number, topic, author's name, and title of article in brief.

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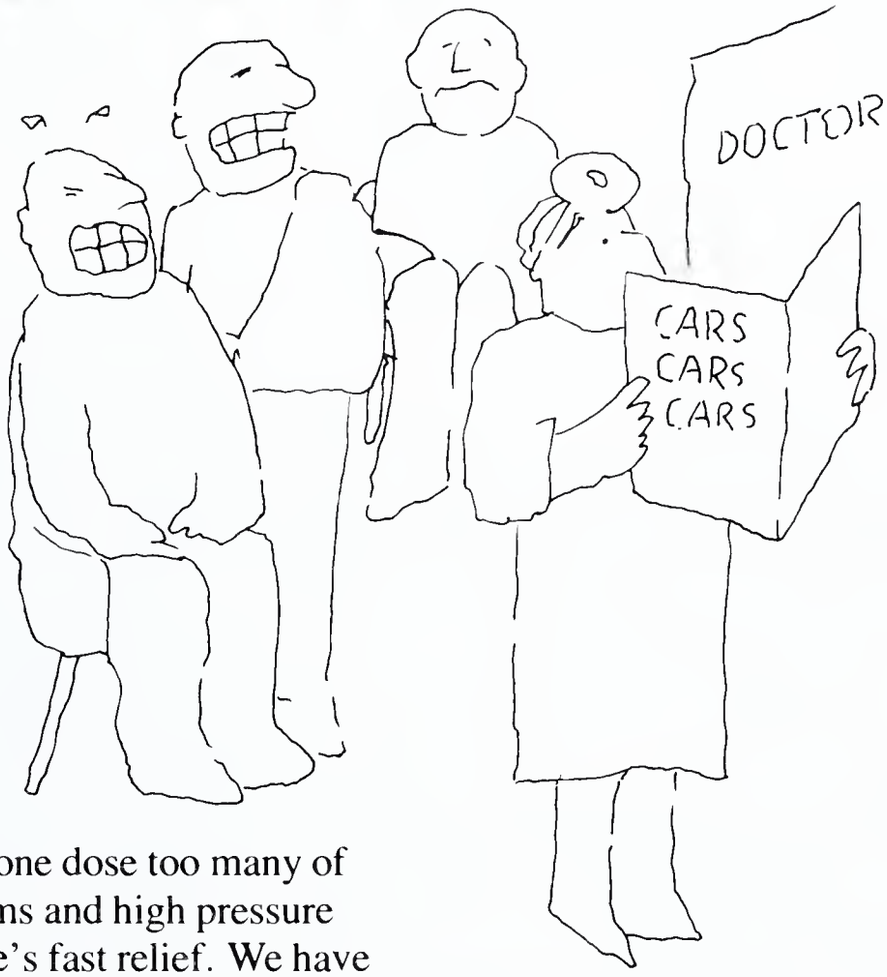

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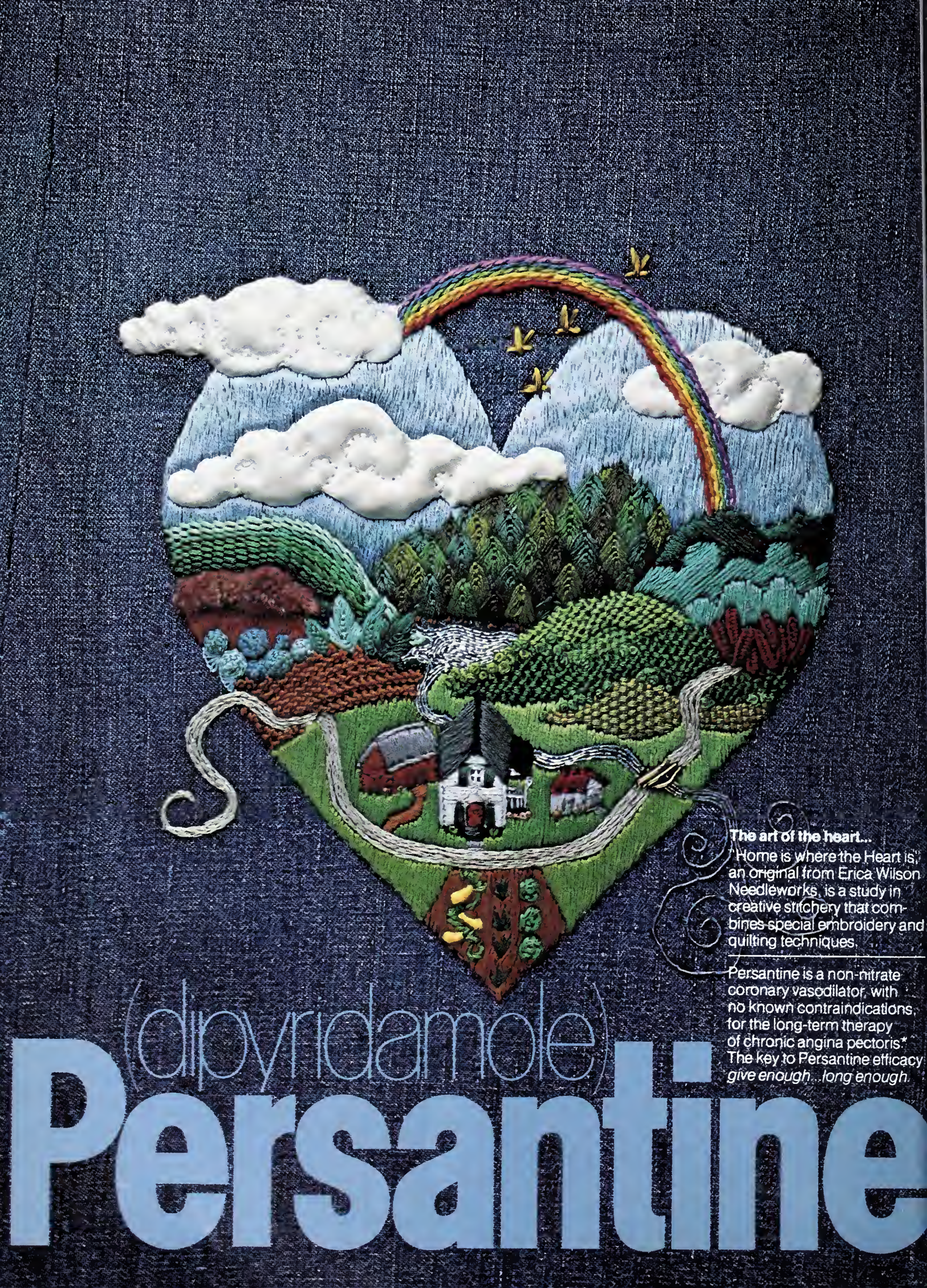
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Physician involvement in a successful peer review program

A. R. Kirkley, MD; Judith D. Anderson, BA

The Texas Medical Foundation (TMF) developed a successful utilization review program that is capable of providing a uniform, statewide review of Medicaid patient care. This admissions and review program allows physicians at the local level to control the review process and to maintain quality care and cost effectiveness within their hospitals. The foundation provides the tools, such as trained medical review personnel, physician-developed criteria, and sound medical care data.

Finally, TMF was created by physicians who believe that private initiative is essential in the health care field and can be more successful than government or intermediary-initiated programs. The TMF-administered Texas Admissions and Review Program is a successful first step toward physician self-monitoring and peer review in all areas of medical care.

Nearly two years ago, the Texas Medical Foundation (TMF) implemented utilization review under the Texas Admissions and Review Program (TARP) in 18 hospitals. TMF had proposed its TARP plan to the Texas Department of Human Resources (TDHR) (then the Texas State Department of Public Welfare), and Department of Health, Education, and Welfare (HEW). Soon after, the foundation's plan was approved for implementation under a waiver from HEW as a superior state program. This review of Medicaid patients was funded by the TDHR.

To date, 172 hospitals have elected to sign agreements with the foundation to conduct Medicaid review. These agreements represent 73,000 annual Texas Medicaid admissions. Approximately 62% of all Medicaid review performed in Texas is now conducted under the auspices of the Texas Medical Foundation.

It is important that physicians understand the accomplishments of the TMF-administered Texas Admissions and Review Program. In the past, appropriateness of medical services for claims payment was overseen primarily by government agencies, government-appointed intermediaries, and/or health insuring agents. In Texas, employees of the health insuring agent screened the medical services provided to Medicaid patients against financial claims data. Screening for medical necessity of services was only a secondary and usually a retrospective activity.

Any claim that did not meet financial or dollar thresholds was rejected, and a long, involved process of medical necessity determination began. This process included costly and time-consuming correspondence with the hospitals. The system's requirements to obtain medical records and copies of charts for review caused lengthy delays, and many times the result was denial of payment or retroactive denial of reimbursement to hospitals.

TMF-TARP eliminates these denials by offering a unique program that includes a sound, uniform approach to review that will assure quality patient care in a cost-effective manner. It also protects the certified hospital from third-party requests for medical records. In accomplishing these aims, TMF seeks to place the major portion of decision making and responsibility of review in the hands of physicians in the local hospital setting.

But before the actual review process could be implemented, a task crucial to the process had to be undertaken by physicians through TMF, that of developing the criteria on which the review would be based.

Criteria

The backbone of TARP is criteria. In workshops sponsored by TMF, representatives from Texas medical specialty societies participated in development of the criteria. Beginning with historical services data, workshop participants developed criteria based on medical care patterns of practicing physicians. Because TMF utilized the physician's experience and knowledge, its criteria more accurately reflect true medical care and service patterns provided to Texas Medicaid patients. TARP criteria only serve as guidelines for determining medical necessity; the ultimate authority remains with physicians themselves.

In addition to the input of physician workshop representatives, physicians at the hospital level also may participate in the development of criteria through their utilization review committee. When physician consultants meet to expand and revise the criteria, they consider suggestions and recommendations submitted by the hospital's utilization review committee.

While the Texas Medical Foundation was developing criteria, TDHR gathered information for the length-of-stay criteria based on its own computer-generated length of stay. The length-of-stay criteria were added after TMF had developed other facets of the program. Many physicians would like to see TDHR's length-of-stay criteria changed to reflect what they consider to be actual practice patterns. TMF's Texas Admissions and Review Program provides the necessary data and review documentation needed to revise TDHR's length-of-stay criteria. Through TMF's daily concurrent review, length of stay for many diagnoses has been reduced, and physicians generally agree that the reductions have not diminished the quality of care.

However, length-of-stay criteria modifications can work both ways. With the information being gathered and analyzed by TMF, the length-of-stay criteria for some conditions requiring longer hospitalization will be modified based on the newly collected medical data.

Review Process

TARP requires the interaction of three groups of people within the hospital: the utilization review committee, physician advisors, and medical care analysts.

The utilization review committee at each hospital has the primary responsibility for review under TARP. Committee membership is composed of physicians from the hospital's medical staff.

The utilization review committee also appoints physician advisors to carry out the primary physician responsibility for review at the local level. This presents a unique opportunity for practicing physicians to make medical necessity determinations on the spot. Consequently, there are no delays, since the review is performed while the patient is in the hospital, and there are no third-party medical determinations.

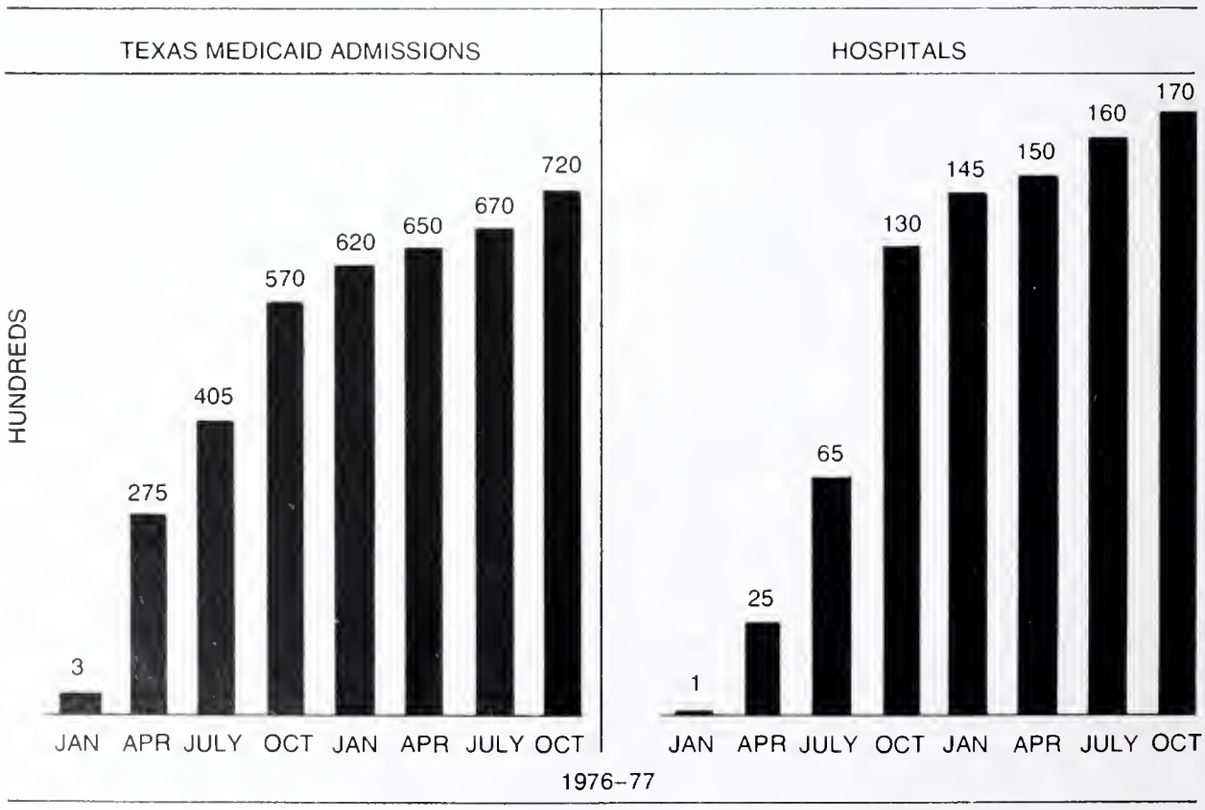
Although the major decisions concerning patient review lie with the physician advisor, the daily screening of patients' charts against physician-developed criteria is performed by trained nonphysician professionals, many of whom are registered nurses or registered record administrators. Medical care analysts perform daily review activities, and refer to physician advisors only those cases that do not meet the criteria for medical

necessity. The medical care analysts relieve physicians of much administrative and paper work. Medical care analysts use physician-developed criteria to screen patient care, and when a need for necessity determination not covered by criteria arises, the analyst submits the case to the physician advisor for review.

In such cases, the physician advisor may consult with the attending physician to determine whether the treatment or service is necessary. If they agree, the physician advisor approves the service. If they disagree, the physician advisor and the attending physician take the case to a representative of the hospital's utilization review committee who is the final authority for approvals or denials of medical necessity. If the attending physician still disagrees with the decision, an appeal may be taken to the full utilization review committee whose decision, although it will *not* affect the determination, will be used for future policy decisions. If the attending physician is not satisfied with the utilization review committee's decision, further appeal may be made through TMF's appeal and denial process.

Physician advisors are important to the success of utilization review. In order for the Texas Admissions and Review Program to properly screen medical services against criteria, physician advisors must work within the guidelines of the program or they will jeopardize physician participation in the review process.

1. These graphs indicate the increase in the number of Medicaid admissions (left) and Texas hospitals (right) reviewed under the auspices of the Texas Medical Foundation from January 1976 through October 1977.



Discharge Planning

One area of utilization review that has received only limited attention is discharge planning. It is important to physicians that their patients be prepared for hospital discharge. This preparation may include education in self care for the patient returning home or assistance for the patient entering an intermediate or skilled nursing care facility.

The foundation has conducted a special study of discharge indicators and discharge plans based on TARP patient abstract data. Although discharge planning is done for most patients, few hospitals have a formal discharge planning program.

To improve effectiveness in this area, TMF is emphasizing discharge planning when training medical care analysts. Future studies will be conducted to determine the effects of discharge planning on patients' length of stay.

Data

TMF has gathered and established a sound, error-free data base of medical care; therefore, physicians now have access to analyzed medical data that will be useful in health care planning, improving health care, and furthering medical research.

The foundation gathers quality data from patient abstracts that are completed by its medical care analysts. The patient abstract itself contains nearly 100 elements of medical care data. Medical care analysts' error rate on patient abstracts is only 0.41 per abstract, and even this low error rate is eliminated in the Texas Medical Foundation's central office through correction.

Armed with quality data, physicians can improve and expand their participation and effect on present and future government programs. TMF data shows that physician involvement in TARP is a significant factor in the successful review of quality patient care. The physician advisor spends an average of 1½ minutes per patient stay and is involved in two out of every three cases. Twelve percent of the cases are reviewed for changes in length-of-stay, 47% for review of over utilization, and 7% for under utilization according to criteria.

Using these data, physicians also can show when review demands have exceeded cost effectiveness or when program decisions are being made from poor data. These data are far more useful to physicians than the financial claims data compiled by government agencies since they may be used to refute contentions that further intervention into the patient-physician relationship is justified.

But more importantly, with such data, physicians can begin to have an impact on health care planning for their communities based on needs of their patients.

TMF's medical care data also will be useful for insurance benefit planning and projections. Using this information, real patient needs are more apt to be covered in the benefit structure. Physicians often are accused of causing cost increases in health care. Many times, however, it is the benefit structure's use of financial data that allows a higher cost level of care than is medically necessary.

Costs

The concept of utilization review is to improve quality of care in a cost-effective manner. Because TMF is under con-

tractual agreement with TDHR, all review costs are covered by the government agency that requires the review. Therefore, when a hospital contracts with the foundation to assist in review, TMF reimburses physician advisors for their time and pays for medical care analysts, training, salaries, and review supplies. In addition, certified hospitals realize other cost advantages which include: (1) TMF assures compliance with government regulations, which assures hospital service reimbursement; (2) TMF guarantees payment for the first 24 hours of the patient's stay; in other words, it guarantees the admission without prepayment screening; and, (3) TMF assures the hospital that there will be no retroactive denials of Medicaid claims.

TMF's approach to daily concurrent review, that of combining quality of care review with utilization review of services, is a new process, but it has already proven to be both successful and cost effective. Recently, TMF secured access to sufficient data to conduct a number of studies concerning TARP's progress. A summary of these studies showed that TMF-TARP is cost effective and should become even more cost effective as volume of review increases and refinement occurs.

Daily concurrent review costs were compared with concurrent review costs of non-TMF hospitals and to original length-of-stay data now used in Texas. Daily concurrent review has reduced length of stay and use of ancillary services. The comparisons between the original criteria length of stay and present data show a reduction of approximately $46 in the cost of a Medicaid patient's hospital stay.

Another study shows that TMF-TARP's earlier projected costs of review per patient stay also have decreased. In 1974, cost for review of a hospitalized patient was estimated at $32 per stay. By 1976, that cost was projected to increase to approximately $40 per patient stay. TMF's recent figures show that the cost of review per patient stay declined 30% below the projected inflationary figure of $40 to $28. Based on these data, it appears that the review cost per patient stay will decline below the $25 level as the volume of reviews increases.

The cost effectiveness of TMF's program is beneficial not only to hospitals and physicians, but also to the taxpayers who support such programs as Medicaid. However, the greatest benefit is to the patient—*more* people receive *better* care with the funds now available, and physicians once again are able to assume a proper role in patient care.

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Suite 390W, Austin, TX 78757.

Final report of the committee to study the future of the private practice of medicine

Perry S. MacNeal, MD

After a year and a half of deliberation spent largely in interviewing nonmedical people from a wide variety of walks of life as well as physicians in full-time employ, physicians in private practice, and physicians still serving their residencies, the committee came to the conclusion that it was developing no new material. All of the information which it was receiving from these sources had already been well documented and reported elsewhere many times. It therefore seemed to the committee that if the report was to serve any useful purpose it would be the form of the report rather than its content which would serve this function. The report follows:

And it came to pass in the days of the rule of the great, omniscient, bifacial, King Janus, that, scanning past and future simultaneously, seeing a full 360° at a single whirl of his radar, his senses brought him only the din of discontent, and the sounds of sickness, and the smells of pollution, and the outcries of protest, and the ferment of the witches' cauldron. And he sought in his Computer a likely candidate for the role of Scapegoat. He prayed to the Mighty Machine:

O, Supreme Being, send me that one who is prosperous from the sale of an unpopular product. Deliver unto me the one who is few among us so that his voice may be shouted down. Point out that one whose labors are dedicated to the false gods of selfless devotion in a constant battle where defeat is assured. Select from the multitude that man whose earned fatigue leaves him too weary to defend himself. Make known to me the man whose skills and education are the envy of all. Deliver unto me that one who asks only honest wages for honest work. This one will we crown with goat horns and clothe with goatskin that all may gather and heap their sins upon him to drive him into the desert and thus be sinless themselves.

And the Great Machine whirred and flashed and with not even a puff of smoke delivered to Janus a card bearing the legend "Doctor." And "Doctor" was made to build his own cage out of beams of benefaction and posts of pity and the wire of work. And they put upon him the horns of The Billy and the hide of The Nanny.

And Janus sent The Word to the multitude.

We have found the source of your sorrows. Come heap your sins upon him that ye may now be free of thy burdens and walk upright in the swamp. Ye know that this is the purveyor of health and ye are not healthy.

Ye know that he is prosperous and ye are poor. Ye know he lives in a clean house and thine is filthy. I, Janus, now deliver him to thee for thy salvation.

And Carpenter came and cursed him for the poor housing that causes disease; and Electrician lashed him for the darkness that depressed the poor; and Plumber laid on the thorns for the lack of sanitation; and Contractor beat him for the high cost of hospitals; and Administrator scourged him for not wishing to be a hireling; and the Young Tribesmen with shiny stethoscopes and springy steps and upright T-waves, their nostrils not yet filled with the odors of pus and their bones not yet weary with trying, added their sophomoric scorn to his burdens. And the people shouted, "We will not pay for Disease," and Doctor wept that they knew not that his product was the minimizing of disease and distress, not their occurrence.

And there marched into the courtyard a great group of white-coated men, all of whom had already given up all that Doctor

had been trying to do; to conquer disease through strength of will, the use of practical knowledge, and devotion to The Worshipful Work. And they spat upon him for his failure to have regular days off. They ridiculed his inability to have tax dodges and retirement benefits. They beat him for giving good medical care at reasonable cost. They said, "We, the Group Practitioners, do it better and cheaper and easier. Our machines will point the way to health and salvation." And they said it so often and so loud and with such conviction that the multitude said that it must be so, for these people wear clean white coats and starched collars and show no signs of having been up all night and bear not the stains and dishevelment of fatigue, and they speak from high places. And Politician heaped upon his head the coals of bad laws and racial prejudice and smeared his face with his own blood that the flies might come to add to his discomfort.

And through the murk of the mid-watch Nurse came with water and Patient brought bread.

And when all had had their turn they drove him into the desert pursued by the triumphant howls of his tormentors. And he dwelt in an Oasis of Sorrow and survived on the figs of frustration at being forced to witness the defeat of the Profession and the disintegration of the ideals which had been its birthright.

And there was a Festival lasting 100 days and 100 nights in which Carpenter and Electrician and Plumber and Contractor and Administrator and the Young Tribesmen and The Groupers and Politicians and all The People made a joyful noise with tinkling cymbals and sounding brass.

And suddenly Fear arrived at the Festival and, seeking the highest podium and the brightest torch, said, "Hear ye. Ye have said ye need more doctors. Ye have given him his reward. Who now will be a Doctor? Ye Carpenter, ye Politician, ye Financier, will you deliver your sons to The Schools so that they may study and labor to become Doctors?"

And a thunderous silence fell upon the multitude, and each looked agape at his neighbors, half pleading and half questing. And then each drifted away to meditate on this malice.

And they sent representatives into the desert to seek out The Doctor but beneath the sands of the Oasis, beneath the barren Fig Tree they found only a dried skeleton and from the branches of the Tree came the flapping of vultures' wings.

Perry S. MacNeal, MD, 513 S Lenola Rd, Moorestown, NJ 08057.

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INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG Pfizer
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25
(meclizine HCl) 25 mg. Tablets
for vertigo*

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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MAKES SENSE

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* **Warning**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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Smoking and health: a commentary

William F. Miller, MD

In 1964, the surgeon general's advisory group concluded, "Cigarette smoking is a health hazard of sufficient importance in the United States to warrant appropriate remedial action." Current HEW data have only served to intensify these convictions. In spite of this, many persons have acquired a great deal of pleasure from smoking and are either unaware of the real danger to their health or have completely rationalized their destructive habit.

The purpose of this article is twofold: (1) to point out eight common misconceptions which often provide a basis for rationalizing the habit, and (2) by reviewing current knowledge about the major health effects of tobacco smoking, to arouse an awareness in smokers and nonsmokers alike of their responsibilities as members of the health care team in helping young people not to start smoking and older people either to give up smoking or at least to recognize their responsibility to honor the rights of the nonsmoker.

Major Misconceptions About Smoking

There are eight major misconceptions about smoking.

1. *Premature death due to cancer or heart attack is the only risk.* Many disorders associated with smoking cause prolonged suffering and disability without the release of quick death.

2. *It is safe to wait until symptoms appear before quitting.* By the time symptoms are recognized, many disorders are well advanced.

3. *A chest x-ray, electrocardiogram, forced spirometer breathing test, and complete physical examination are effective indicators of early disease due to smoking.* These are, for the most part, the best that can be done, but they are by no means early indicators.

4. *There is no point in quitting if you have smoked for many years or already have a smoking-related disorder.* The chances for diminishing risk are always improved any time a person quits.

5. *Pipes or cigars are safe substitutes for cigarettes.* Most cigarette smokers continue to inhale, so the risk is, in fact, increased.

6. *Filters and low-tar-and-nicotine cigarettes eliminate the risk.* Whereas filters have some effect on reducing the incidence of lung cancer in men, the risk in women is increasing in spite of filters. Moreover, filters have no demonstrable effect on reducing the coronary artery disease because it is related to gaseous products from the cigarette smoke not removed by the filter. In fact, recent studies indicate a higher yield of carbon monoxide from filter-tip brands.

7. *The risk of all diseases in women is negligible compared to men.* The difference in incidence between men and women is rapidly diminishing, and at the present rate it is expected that women will surpass men in the incidence of all smoking-related diseases, perhaps in ten years.

8. *My smoking doesn't hurt anyone else.* To breathe clean, unpolluted air is a basic human right; the smoker, by an overt act, violates that right usually in a completely thoughtless or selfish way. The nonsmoker is usually too sensitive or shy to complain, but will despise the smoker for his trespass.

I hope the fallacy of these concepts will become apparent in light of the facts.

Here Are Some of the Facts

There is a direct relationship between the magnitude of exposure and the inci-

dence as well as the severity of tobacco-related diseases. Exposure includes not only the number of cigarettes but also the intensity of inhalation. Many persons are confused by their own experience wherein they see persons whose smoking habits vary widely in relation to the apparent consequences. There are two very important factors that need to be considered on an individual basis.

First, there is a great variation in human susceptibility. Some persons may smoke very little and suffer great consequences; others may smoke a lot and suffer lesser consequences. But both are playing Russian roulette.

Second, there is a great variability in the exposure of individuals using the same number of cigarettes. The factors include: (1) content of toxic substances in the tobacco; (2) intensity of puffing—the hotter the burn, the worse the consequences; (3) intensity of inhalation and the length of time the smoke is held in the lungs; and (4) the amount of the cigarette smoked, in other words, the amount of tobacco actually consumed. The incidence of disease per 100,000 population is shown in Fig 1.

The tar, nicotine, carbon monoxide, arsenic, cadmium, nitrogen dioxide, ammonia, benzene, and formaldehyde are the principal significant toxic factors in tobacco smoke relating exposure to disease.

Cessation of smoking at any time significantly reduces the risk of morbidity and mortality. The inflammatory changes associated with bronchitis improve within 8 to 12 weeks. The likelihood of death from emphysema, cancer, and heart attack decreases to less than one-half the smoker's rate after one year, and less than one-fourth after ten years of abstinence.

Smokers experience up to 140% more *days lost from work* and 90,000 *excess days* in bed due to all illnesses, depending on sex and number of cigarettes smoked. The highest incidence occurs in women 17 to 44 years of age and next highest in men 45 to 66 years of age.

Heart Disease and Smoking

Known factors in death caused by coronary artery disease include nicotine and carbon monoxide. Current work suggests there are other, unidentified, gaseous agents that pass filters. However, it must be recognized that physical activity is a known important deterrent, and hypertension and stress are known to be important contributing factors.

Nicotine has these effects: (1) increases myocardial oxygen requirement; (2) increases platelet coagulation; (3) increases circulating lipids; and (4) inhibits fibrinolysis. Heavy smokers get 50-100 mg nicotine per day.

Carbon monoxide compounds the problem by decreasing oxygen availability, because compared to oxygen, carbon monoxide has a much higher affinity for hemoglobin, which is needed to carry

1. Incidence of disease per 100,000 population.

Level of Smoking Habit	Lung Cancer	Coronary Heart Disease	Emphysema
Never	10	50	2
½ pack/day	100	200	40
1 pack/day	150	350	100
2 packs/day	250	500	250

oxygen to the working heart and other vital organs. The carbon monoxide literally crowds out the oxygen; carbon monoxide hemoglobin levels up to 15% are found in regular smokers.

Federal Air Quality Standards require for industrial situations that carbon monoxide levels not exceed 50 ppm, which is considered to be hazardous, and require for environmental air less than 9 ppm. In a normally ventilated conference room where six cigarettes per hour are smoked, the concentration of carbon monoxide reaches 80 ppm. In a closed car during open country driving and with ten cigarettes per hour being smoked, the carbon monoxide concentration reaches 120 ppm. These levels will produce four- to five-fold increases in the blood carbon monoxide level of the nonsmoker. So, under these common conditions, the nonsmoker is at significant risk because of the smoker. This condition could be dangerous for persons with serious heart or lung disorders. For the smoker, the concentration in his inspired air approaches 400 ppm, so again, he is at greater risk.

Respiratory Effects of Smoking

The relationship of smoking to cardiovascular disease and to cancer of the respiratory tract is well appreciated. However, from a socioeconomic and personal philosophical point of view, far more important than the swiftly fatal cardiac and pulmonary conditions is the effect of smoking on producing prolonged human suffering with disability and dependency. Bronchitis and emphysema are such conditions.

Chronic bronchitis is a miserable condition in which the victim experiences hawking, coughing, spitting, wheezing, and gasping. Bronchitis is caused by the combination of direct irritating effects of the hot smoke on the lining of the respiratory tract and the effect of the smoke in paralyzing the ciliary action of the lining cells, thus interfering with normal bronchial clearance and allowing the many irritants and germs we breath to accumulate and cause more damage. This leads to repeated infections. With cessation of smoking these changes may be reversible.

Emphysema, which rarely occurs in the nonsmoker, causes progressive inexorable shortness of breath from which the patient rarely dies except in the presence of some complicating problem such as pneumonia, heart failure, pulmonary embolism, or chest trauma. However, there are many who wish they could die to get relief from their misery. Severe depression and suicide are very high in these patients.

Emphysema is a condition in which the normal soft pink, fine pore, spongelike character of the lung is destroyed. The thin walls of the air spaces deteriorate from repeated injury and break, leaving large holes in the lung, thus reducing the effective oxygen exchanging spaces in the lung. The lung becomes black and leatherlike.

Smoking may produce another condition called *fibrosis,* which is scarring. Both emphysema and fibrosis make breathing difficult and cause the body to be slowly starved for oxygen by interference with oxygen exchange.

Death rates from influenza and pneumonia are much higher in smokers than in nonsmokers.

Respiratory illness in children living in homes with smokers is double that in children living in homes of nonsmokers. Children exposed at home and in the automobile are being addicted to nicotine. Also, many nonsmokers are allergic to tobacco smoke.

Other Health Effects

The incidence of cancer of the mouth, throat, bladder, and gastrointestinal tract, and coronary artery disease is

significantly higher in smokers than in nonsmokers.

Another seldom appreciated effect of heavy smoking is a significant reduction in sexual drive and potency in men and women alike.

Expectant mothers who smoke heavily are affecting their children-to-be. The chances of premature birth or miscarriage increases in proportion to the amount that the mother smokes. Two packages per day doubles the chances for such incidents. Current studies indicate that the incidence of coronary artery thickening is greatly increased in the children of smoking mothers. The fetal death rate is 6/100,000 for babies of nonsmoking women and 16/100,000 for those of smoking women. Many obstetricians and gynecologists *who smoke* argue about the evidence, but no evidence to the contrary has been presented. Someone proposed this message to expectant mothers, "God gave you the privilege to have a child, but not the right to poison it."

Leukoplakia, gingivitis, and dental staining are common manifestations of heavy smoking. Cancer of lip, tongue, and throat are more frequent, particularly in cigar and pipe smokers.

Psychological Factors

The following is a brief review of some psychological facts about the smoker and smoking based on notes from the book, *Smoking Behavior and Incentive,* edited by William Dunn:

1. Smoking is a form of personal diversionary activity, one of many decisions each person must make based on an assessment of advantages vs disadvantages.
2. Different people smoke for different reasons, some to arouse, others to quiet themselves under stress.
3. Smoking will modify mood states or, more specifically, will reduce fluctuations in mood.
4. Heavy cigarette smoking in adolescents stems in a large part from an inner need to cope with negative feelings.
5. Heavy and hard smoking in adults is related to anxiety and tension.
6. Nicotine produces a differential reduction in the irritability.
7. Nicotine and the smoking act exert a tranquilizing effect on the central nervous system.

Most workers admit that all the apparently good things attributed to tobacco smoking can be accomplished by developing for oneself a psychologically and physically healthy life based on a careful assessment of values and priorities. A very high priority should be given to exercise, because sound physical conditioning can provide: a release from nervous tension, psychological and physical stimulation, and improved well-being of most body functions, as well as things that smoking can't provide, such as improved health and longevity with a lower risk of death and improved sexual drive and potency.

A psychological study group examining the pros and cons of smoking came up with the lists found in Fig 2.

Data from a recent study on cigarette sales show that high nicotine content and advertising are the factors influencing public attraction for a particular brand.

Stopping the Smoking Habit

There are a number of methods to induce abstinence from smoking, such as the biofeedback or negative conditioning methods using electroshock or drugs to make tobacco smoking repulsive. Usually, these techniques work better on animals than on man. The success of all methods depends on a high level of sincere motivation to quit.

Five-Day Plan of McFarland

McFarland's plan is based on the premise, "I choose not to smoke," with the person

quitting all at once. Success is expected by applying this program in full for at least five days, then applying those parts that are most influential in sustaining abstinence on a continuing basis. Ten cogent rules are set down:

1. Relax in a warm bath for 15 to 20 minutes, two or three times a day. You may alternate with cold-friction baths.
2. Drink six to eight glasses of water between meals (four to six quarts) per day for two days; then at least half that amount.
3. Strive for regularity in sleep, exercise, and meals.
4. Work or get busy after meals—no sitting.
5. Avoid alcohol, coffee, tea, and colas.
6. Avoid highly spiced, rich foods, fats, and sugars.
7. Emphasize fruits, grains, vegetables, and lean proteins in your diet.
8. Take a complete vitamin supplement high in B vitamins.
9. Avoid sure-cure medications; your doctor will recommend a tranquilizer if necessary.
10. Pray.

What Can You Do To Help the Person Trying To Quit?

1. Give them clear, authoritative, dogmatic education about adverse health effects, repeatedly.
2. Advise family not to smoke to provide smoke-free environment.
3. Suggest they keep a daily record of cigarettes smoked and why each was smoked.
4. Suggest that if a cigarette is taken, they try not to light the cigarette, if possible.
5. Recommend sedatives or stimulants, as appropriate.
6. If the patient must smoke, suggest a switch to a low-tar-and-nicotine cigarette. Don't recommend a switch to pipe or cigar—cigarette smokers inhale sooner or later; then the risk is even greater.
7. Advise the use of nicotine gum or lozenges for heavily addicted persons.
8. Recommend the generous use of astringents (negative conditioning).

Political and Economic Considerations

The most gigantic trespass of all is the one our federal government is perpetrating on the people of this country, especially the nonsmokers who comprise more than 60% of the voting population.

Cigarettes cost us more than $15 billion a year in the form of health and disability payments, subsidies to the tobacco

2. Pros and cons of smoking.

PRO	CON
1. Relaxes tension	1. Health hazard
2. Helps national economy	2. Unclean habit, causes bad odor on clothes, hair, and body
3. Status symbol for young people	3. Trespass on nonsmokers
4. Aids population control	4. Fire hazard—bed, forest fires
5. Good for medical and funeral business	5. High cost to individual—money, if invested, amounts to an incredible sum. High health care costs
6. Gives feeling of belonging	6. Suggests psychological immaturity; persisting oral fixation
7. Aids weight control	7. Ruins the sense of taste

farmers, property damages, and cleanup costs. Since the federal tax on cigarettes is only $.08, and has been at that level since 1951, it is obvious that the burden of this cost is not being borne by the smoker, but largely by the nonsmoker at a cost of $50 per year for every adult and child. Thus, the nonsmokers not only must pay in suffering the well-known abuse of the smoker, but also in money to support smoking *for the smoker!* At the same time, our federal government cuts its expenditures in behalf of the nonsmoker through elimination of support for research and smoking action groups.

Insurance companies have finally recognized that it is the nonsmoker who pays the premium for the smoker for virtually all types of insurance, but chiefly for life, fire, auto, health, and disability coverage. Many companies offer reduced premiums to nonsmokers.

What Can Physicians Do?

Each physician is a representative in the health care field and has a responsibility to be concerned with the total welfare of people. If we are not concerned, there is a significant element of intolerable hypocrisy in our way of life. Smoking is one of the greatest and most expensive, but avoidable, health hazards of our time. The following actions are recommended:

1. Support ASH, a national organization for legal *Action* on *Smoking* and *Health*, 2000 H St NW, Washington, DC, 20006. This organization has been responsible for most of the accomplishments in behalf of the nonsmoker.
2. Support the local lung association and specify Christmas seal donations for support of the effort against smoking.
3. Make your waiting room and patient care areas nonsmoking areas. Lose patients, you say? Experience has demonstrated that if you get your nonsmoking patients to pass the word, and they will, you will gain two patients for every one you lose. Moreover, smokers and nonsmokers alike admire the truth and an independent attitude; hypocrisy is not admired by anyone.
4. Distribute smoking education materials, available at no cost through your local lung association or at a nominal cost through ASH. Work especially hard on the young people to prevent their starting. Urge older persons, whose excuse for smoking is to keep their weight under control and to have something sociable to do, to remember they may be facing a life filled with suffering and thus not worth living anyway. They may also kill innocent persons if they accidentally start a fire where they live. It happens hundreds of times every year.
5. Write to your government representatives. The evidence is clear—they should know it. If they don't, you can tell them, and if they do, let them know you know and expect them to take some action.
6. Be aggressive in protecting your rights and the rights of other nonsmokers by requesting nonsmoking areas in restaurants and other public areas where smoking is currently allowed. It is illegal to smoke in elevators and corridors of public buildings. Every citizen must help enforce this. Airlines are subject to a $1,000 fine for each separate violation in failing to provide, on request, a seat in a no-smoking area.
7. Educate others. Contact your heart association, lung association, and cancer association for materials and methods.

Summary

Smoking is dangerous to the health and welfare of people even in more ways than I have indicated. Physicians should be interested in protecting the nonsmoker as well as the smoker. The evidence is in favor of aggressive action, so we should act now. The World Health Organization has emphasized the rights of the nonsmoker by the statement, "Smoking is a diversionary activity which should be limited to consenting adults in private."

William F. Miller, MD, Methodist Hospitals of Dallas, PO Box 5999, Dallas, TX 75222.

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Medical Newsmakers

CHARLES M. GAITZ, MD, chief of gerontology research at the Texas Research Institute of Mental Sciences in Houston, has been named to a special national task force to study problems of the elderly for the President's Commission on Mental Health.

Two faculty members from Texas Tech University School of Medicine have received separate grants from the American Diabetes Association, North Texas Affiliate, Inc, to support diabetes research at the school. The recipients are K. JOHN MORROW, PhD, associate professor of biochemistry, and PERRY SPEROS, PhD, assistant professor of ophthalmology and visual sciences. Dr Morrow is researching the possibility of producing an artificial pancreas to aid patients in the production of insulin. Dr Speros is researching methods for earlier detection of visual impairment in diabetics.

WARREN J. RAYMER, MD, Houston, has been appointed to serve on the Medical Resources Advisory Panel of the Texas Air Control Board.

EMIL FREI, III, MD, director of the Sidney Farber Cancer Institute in Boston, has received the second annual Jeffrey A. Gottlieb Memorial Award from The University of Texas M.D. Anderson Hospital and Tumor Institute. Dr Frei served as the first head of the department of developmental therapeutics at M.D. Anderson. He is a consultant to the Division of Cancer Treatment at the National Cancer Institute, a professor of medicine at the Harvard University School of Medicine, and a past recipient of the Albert Lasker Award for Clinical Research.

The Distinguished Service Medal, the Army's highest award for non-combat service, has been presented to MAJ GEN SPURGEON NEEL, MD, the former Commanding General of the US Army Health Services Command at Fort Sam Houston. Gen Neel has passed his command to MAJ GEN MARSHALL E. McCABE, MD, a board certified internist. He is a fellow of the American College of Physicians, and a member of the American Medical Association, the Bexar County Medical Society, the Texas Medical Association, and the Association of Military Surgeons of the United States.

C. LINCOLN WILLISTON, executive director of the Texas Medical Association, has been reappointed by the Governor to serve a six-year term on the Hospital Advisory Council of the Texas Department of Health.

The University of Texas M.D. Anderson Hospital and Tumor Institute has presented the 12th annual Heath Memorial Award to GEORGES MATHÉ, MD, the director of the Institute of Cancerology and Immunogenetics in Villejuif, France. Dr Mathé is honored for his outstanding contributions to the better care of cancer patients. He serves as chief of the hematology service at Gustave-Roussy Institute in Villejuif and professor of experimental cancerology at the University of Paris-Sud.

WILLIAM A. DUNNAGAN, MD, Lubbock, has been elected to active membership in the American Roentgen Ray Society. Dr Dunnagan is professor and chairperson of the department of radiology, Texas Tech University School of Medicine.

RICHARD L. LAWTON, MD, vice chairperson, department of surgery, Texas Tech University School of Medicine, has been awarded the Chairman's Award by the National Kidney Foundation. Dr Lawton is recognized for his deep interest in the well being of the Kidney Foundation, both at the affiliate level and at the national level.

S. JOE McCORD, PhD, has been named interim director of the medical library at The University of Texas Health Science Center at Dallas. In this position, Dr McCord will serve as director of the South Central Regional Medical Library Program.

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National Commission on the Cost of Medical Care issues health cost proposals

The nation must make substantial changes in its health care system to curb fast-rising costs, the National Commission on the Cost of Medical Care has recommended.

The 27-member independent commission, created two years ago under the auspices of the AMA, in December issued a 30-page summary report containing 48 recommendations on reducing the cost of medical care.

The Commission was appointed by the AMA Board of Trustees and began its deliberations in March 1976. It was composed of representatives of business, labor, government, consumer groups, academia, and various components of the health care system. Eleven of the members are physicians.

Introduction

"After years of consumers wanting unlimited care; governments' promoting growth in the production of both providers and facilities; and physicians' providing services based solely on quality, it is necessary to instill alternative behavior in everyone," the report states in its introduction.

"Health care costs have escalated over the decade from 1966 to 1976 with annual expenditures climbing from $42 billion to $137 billion," the report notes. "Expenditures on health care have grown at an average annual rate of 11 percent. While a little over half of this growth is attributable to a general rise in prices, this escalation rate is faster than for the rest of the economy. The health care share of the Gross National Product, now 8.6 percent, could, at present rates of growth, rise to 10 percent, or more, before the next three years pass."

The following sections include the Commission's recommendations on what providers, consumers, insurers, and regulators should do to make the delivery of health care more cost effective.

Strengthening price consciousness

The Commission examined two approaches for containing health care costs: strengthening price consciousness, and increased use of public utility type regulation (for example, controls on rates, revenues, and capital acquisitions).

Both approaches have potential benefits and disadvantages, the Commission concluded. Sole reliance on price as a mechanism for determining access to care obviously has an adverse impact on the poor.

For a market to function well, consumers must be adequately informed about the prices, qualities, and efficacy of the alternatives before them. Owing to the complexity of medicine, there is some doubt whether this condition can be sufficiently satisfied, the Commission stated.

Public-utility regulations have not usually been effective in reducing prices in other industries, the Commission noted.

The Commission recommended economic incentives in purchasing insurance and health plans. New employees of firms that provide health care benefits should be allowed, whenever feasible, to choose among a number of health care programs offered to them by their employers, through certified carriers including Health Maintenance Organizations.

To increase consumer price consciousness, the Commission recommended that when a consumer purchases health care insurance, the current exclusion from taxable income of employer paid health insurance premiums and the current tax deduction for consumer payments for insurance premiums should be replaced with either a fixed dollar tax credit or deduction.

The tax treatment of payments for health plans and health care insurance should be identical for employer-provided and self-purchased programs.

The Commission also recommended

consumer cost sharing. Insurance policies should include provisions through which the consumer shares in the cost of care received, at the time of service, for selected benefits and for selected groups, and in which employees share in groups premium costs.

HMOs have the potential to strengthen consumer and provider price consciousness by competing on the basis of services delivered and price, the Commission said. Policy should be neutral between HMOs and fee-for-service practices, and there should be fair market competition between HMOs and other provider and insurance systems.

On a voluntary basis, physicians should make available in a regional directory, such information as prices for rather well-defined procedures, length of time required to obtain an appointment, willingness to accept new patients, institutional affiliations, and board certification. Hospital directories should also be available and include information on services offered and other information relevant to consumer choice.

Organizations financing health care services should be certified at the state level on the basis of financial soundness, and plans should be routinely monitored by the same agency to guard against misrepresentation of cost or benefits, the Commission recommended.

Recognizing that the quality of care given by a provider is difficult to measure, the Commission recommends a major research effort concentrating on patient outcomes or process measures known to be associated with outcomes. Once a reliable method for measuring quality of care is available, the results should be communicated to consumers.

Voluntary recertification programs can make information on provider quality available to consumers, the Commission noted. Medical associations should promote voluntary recertification programs from which descriptions of the criteria for recertification as well as information on an individual physician's participation in the programs, could be make available to consumers.

In receiving the report, AMA Executive Vice President James H. Sammons, MD, stated:

"The report of the Commission represents eighteen months of thorough study and considered thought by twenty-seven people representing several diverse interests.

"I want to emphasize that the Commission has been and is an entity unto itself. The Report at this point is just that: the Report of the Commission. It is controversial; parts of it run contrary to present AMA policy; I expect—and I hope—it will generate constructive debate throughout the profession to arrive at solutions to unprecedented problems.

"The report will be of immense value to the House of Delegates which determines AMA policy. With this input the House will reexamine, discuss and reevaluate existing Association policies. The impact of cost increases on the patient, the physician and the insuror are now so significant that existing assumptions must be reconsidered. This is clearly a time that calls for open minds and strong leadership. I am sure that the AMA will meet this challenge."

Private sector cost containment initiatives

The Commission discussed payment or reimbursement systems designed to stimulate cost-effective delivery of health care, based primarily on private-sector initiatives.

The Commission recommended that local groups of physicians, hospital people, third-party payers, and other appropriate parties should work together to reach agreement on the reasonableness of reimbursement levels for providers.

The Commission urged the hospital industry to create a structured voluntary cost constraint program based on periodic review and public notice of all hospital expenditures exceeding a predetermined acceptable limit, with participation from out-

side the industry and the full involvement of the medical staff.

Reimbursement mechanisms are useful in providing incentives for hospitals to restrain, voluntarily, additions to capacity and to deliver care cost effectively, the Commission said.

Third-party payers including government should be encouraged to conduct experiments designed to reduce expenditures for inappropriate care, to reimburse only services performed on equipment approved by placement review, and to insure that charges for ancillary services are based on appropriate standards of utilization.

The Commission recommended that payment to institutions on the basis of prospectively determined rates and other payment systems which also create incentives for facilities to be more cost conscious should be explored and implemented as their effectiveness becomes clear.

Programs should be designed to provide incentives to hospitals to limit bed capacity according to the needs of the population served by the hospitals, the Commission said.

Peer review is a potentially important method of identifying appropriate care patterns, the Commission said, adding that to be effective such review must consider cost benefit implications, quality of care, and medical necessity. The Commission believes that physicians should and can engage in peer review.

On the basis of peer review criteria and findings, the medical profession, working through specialty societies and others, should develop and disseminate guidelines for appropriate care based on criteria of medical necessity, quality, and cost benefits, the Commission recommended. These criteria should be sufficiently detailed and explicit to identify departures from them and allow independent consideration of the medical appropriateness of such departures.

Guidelines for regulation

The Commission believes that the greatest hope for cost containment in the provision of health care lies in strengthening price consciousness in the health care marketplace. Before such a solution can be achieved, however, a greatly enhanced decision-making role must be provided for the consumer, the Commission said. Developing mechanisms to effect this change in the complex and necessarily provider dominated area of health care delivery is no small task, and cannot be expected to occur without some regulation, the report states.

Controls on the delivery of health care are now a fact of life, the Commission said. As the government's role in financing health care has expanded, many of these controls have been targeted at costs.

In the absence of efforts to strengthen consumer and provider price consciousness, such as controls on rates and revenues, are likely to become necessary to achieve cost containment, the report states. However, a careful study of public-utility regulations on health care delivery should be made prior to any widespread adoption.

The Commission recommended that if controls on revenues, capital acquisition, and prices, are expanded, attempts should be made to evaluate the effects. In light of problems with public utility regulation in other industries, evaluation of regulatory options should take into account provider capture of the rate setting process and the effect of the regulation on competition between providers, including impact on entry and innovation.

Regulation whose rationale is cost containment should exempt organizations or areas where innovations are being tested for the purpose of cost containment, or where strategies to increase price consciousness are being successfully pursued.

The Commission supports the concept of area-wide planning and review of capital expenditures such as the establishment of a multi-hospital system, sharing of services among hospitals, and contracting out of certain services. It believes that efforts should be made to reduce the social costs due to duplication and underutilization of expensive capital. Regional efforts to improve planning for the cost-effective provision of health care may require both ex-

pansion of certificate of need legislation to some nonhospital settings and the certification of some existing hospital services.

The Commission encourages the development of guidelines other than on a national basis to determine what health personnel and facilities are needed in various geographic areas to meet the expected demand for health services.

The Commission recommends developing consensus criteria for the placement of expensive facilities and capital equipment such as computed tomography scanners and open heart surgery units for use by state and local health planning agencies in making placement decisions. The criteria should be developed at the national level with the cooperation of expert health professionals including providers and government and should be flexible enough to meet specific needs of individual states and localities.

Capital expenditure limits such as those proposed in the Hospital Cost Containment Act of 1977 should not be enacted, the Commission said.

Cost containment measures within medical practice

In the past providers have considered primarily the medical needs of their patients. However, the Commission believes that providers must now take steps to make cost-effective utilization recommendations without sacrificing quality of care.

Providers working at the local level should develop mechanisms for sharing of diagnostic findings for a given patient to avoid duplication of expensive diagnostic tests and procedures.

The Commission considered results of recent experiments concerning second opinions prior to elective surgery. Third party payers working with providers should undertake evaluation of the methodologies and results of current experimentation with coverage of second opinions prior to elective surgery. The long-term results and general adaptability of such programs should be evaluated in terms of medical care quality, cost effectiveness, the cost and quality of alternative care provided in place of surgery, and the long-range medical implications for the patients who did not have surgery.

The medical profession and others working together should examine those factors associated with medical practice that lead to utilization of inappropriate care and assume responsibility for informing providers and consumers of their existence and impact.

The medical professional should strongly encourage increased efforts to develop effective means for dealing with those providers of medical services who are abusing or defrauding the health care financing or delivery system.

Providers and courts should utilize guidelines of appropriate care based on considerations of quality, medical necessity, cost effectiveness, and allowing for the varying circumstances. The medical and legal professions working together with third-party payers should examine the feasibility and desirability of having the resolution of professional liability claims placed outside the traditional courtroom-jury setting.

The Commission also encourages the development of policies and mechanisms that lead to continuing availability of patient care including professional preventive care and early-detection screening services.

Supply and distribution of health care providers

The effect of the current rate of growth of the supply of physicians and the implications of their geographic and specialty distribution on health care costs was discussed by the Commission. Research shows that physicians have tended to locate disproportionately in the large urban centers of this country and not necessarily where the need for their services is most acute.

The Commission believes that the current rate of production of physicians is adequate to meet expected demands and that there should be no new efforts to increase the number of medical school grad-

(Continued on page 103)

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1. Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131 1027-1029, 1974.

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Adverse Reactions—Dry mouth, blurred vision and constipation have been reported. Drowsiness has also been observed.

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(Continued from page 98)

uates until a time when a need is clearly evident.

The Commission does believe that more effort must be devoted to improving the professional attractiveness of service in shortage areas. The development of preceptorships and other rural and inner-city training programs would be instrumental in acquainting physicians with medical practice in shortage areas. However, the potential impact of any program would be limited without an effort to provide an environment and resources that would increase the number of physicians who remain in an underserved community after such training.

Less reliance on current loan-forgiveness and scholarship programs as a means to affect physicians location decisions is recommended. For such a policy to be effective, recipients of government loans and scholarships who default on their service commitment must be required to pay back a substantial portion of the cost of medical education rather than just the cost of tuition.

However, if state loan forgiveness programs are established, they should be coupled with admission programs which actively recruit students from rural and other underserved areas, the report said.

The financial level alone is insufficient to have a permanent influence on physician distribution, the Commission said, but the joint effect of admissions and loan policies hold more promise of being successful, since students who were raised in a rural environment are most likely to return there to practice.

There should be an increase in the proportion of family practice physicians. Such an increase could be expected to contribute to the moderation of rising health care costs in two ways, according to the Commission. Costs could be lower through the substitution of physicians trained in the delivery of primary care for more specialized physicians who are likely to provide more expensive primary medical service and through lower training costs for a given supply of physician manpower or, conversely, a larger supply for the same level of costs.

In other areas, the Commission believes that medical, dental, and osteopathic schools should develop curricula designed to expose students to the economics of the care they deliver, the nature of resource scarcity, and a variety of health care settings.

With the sponsorship of appropriate professional societies, and with the use of a good textbook, the economics of care should be incorporated in courses as a part of professional training. The material should be mandatory and subject to examination, the Commission believes.

In the area of allied health personnel, the Commission recommended that legislation restrictions should be modified regarding the use of allied health professionals under the supervision and direction of a licensed physician responsible for the assistant's performance.

Reimbursement systems should pay physicians or their institutions directly for the services of allied health personnel and these professionals should be under the supervision of practicing physicians.

Research guidelines

In recent years, technological innovations have attracted increased attention as a cause of rising health care costs. There should be a substantial expansion of efforts to assess health care technologies and to collect and disseminate the resulting information. The Commission recommends creation of a national center to serve as a central depository and clearinghouse for information on health care technologies. The center would be an important source of information for physicians, patients, and all others concerned with medical technologies, including governmental and other third-party payers.

Existing restrictions on the diffusion of new drugs and devices, including the Food and Drug Administration's market clearance tests, should not be expanded, the Commission recommended.

Health Systems Agencies and health planning in Texas

Health planning—at the federal level, state level, and county level—continues in Texas. As that planning continues, the Texas Medical Association continues a strong program of physician involvement in the health planning process.

Not only are physicians active in the 12 Health Systems Agencies (HSAs) across Texas, but also involved are members of the TMA Auxiliary, as participants. observers, and monitors.

Don Anderson, TMA assistant executive director, calls HSA observation vital because it is anticipated that HSAs will soon begin to lean heavily toward the health care delivery system, directly involving private practice.

Presently, HSAs are primarily reviewing applications for construction of new health facilities or additions to existing facilities. However, the scope of the HSAs responsibilities goes much farther.

HSAs were formed after the passage of PL 93-641, the National Health Planning and Resources Development Act of 1974.

PL 93-641

Long before PL 93-641 was passed, TMA was active in health planning with the formation of a Committee on Health Planning, in 1967. With the passage of PL 93-641 TMA has maintained a rigorous program of monitoring HSA meetings.

Now, an even larger program to get TMA Auxiliary and medical students involved in administrative functions, public relations, and monitoring activities is developing across the state.

The 1974 law requires a state to adopt certificate of need legislation governing institutional construction and facility expansion. For that purpose, Texas created the State Health Facilities Commission to work with the Texas Department of Health.

The national legislation also required a state agency to set a state health plan and review institutional facilities and services in relation to the plan. States were required to set up a health service area network in each state with an HSA as the planning body for each area. Texas was divided into 12 areas.

PL 93-641 was passed to have an impact on the cost, availability, and quality of American health care. National goals were included in the legislation to achieve primary care services for medically underserved areas, consolidation of institutional health services, promotion of quality health services in conjunction with PSROs, and promotion of preventive health care activities.

SHCC

The national health legislation also mandated a state health planning board, called the Statewide Health Coordinating Council which serves as an advisory board to the Texas Department of Health. Gov Dolph Briscoe has appointed 39 members to the Texas council which held its first meeting in November.

There are eight physicians on the council including Per H. Langsjoen, MD, Temple; L.S. Thompson, Jr, MD, Dallas; Louis E. Gibson, MD, Corsicana; C.B. Jackson, Jr, MD, Houston; Capres S. Hatchett, Jr, MD, Amarillo; James L. Coleman, Jr, MD, Victoria; Francine Jensen, MD, Houston; and Robert F. Lewis, MD, Odessa. Dr Gibson is chairman and Dr Jackson is vice-chairman of the council.

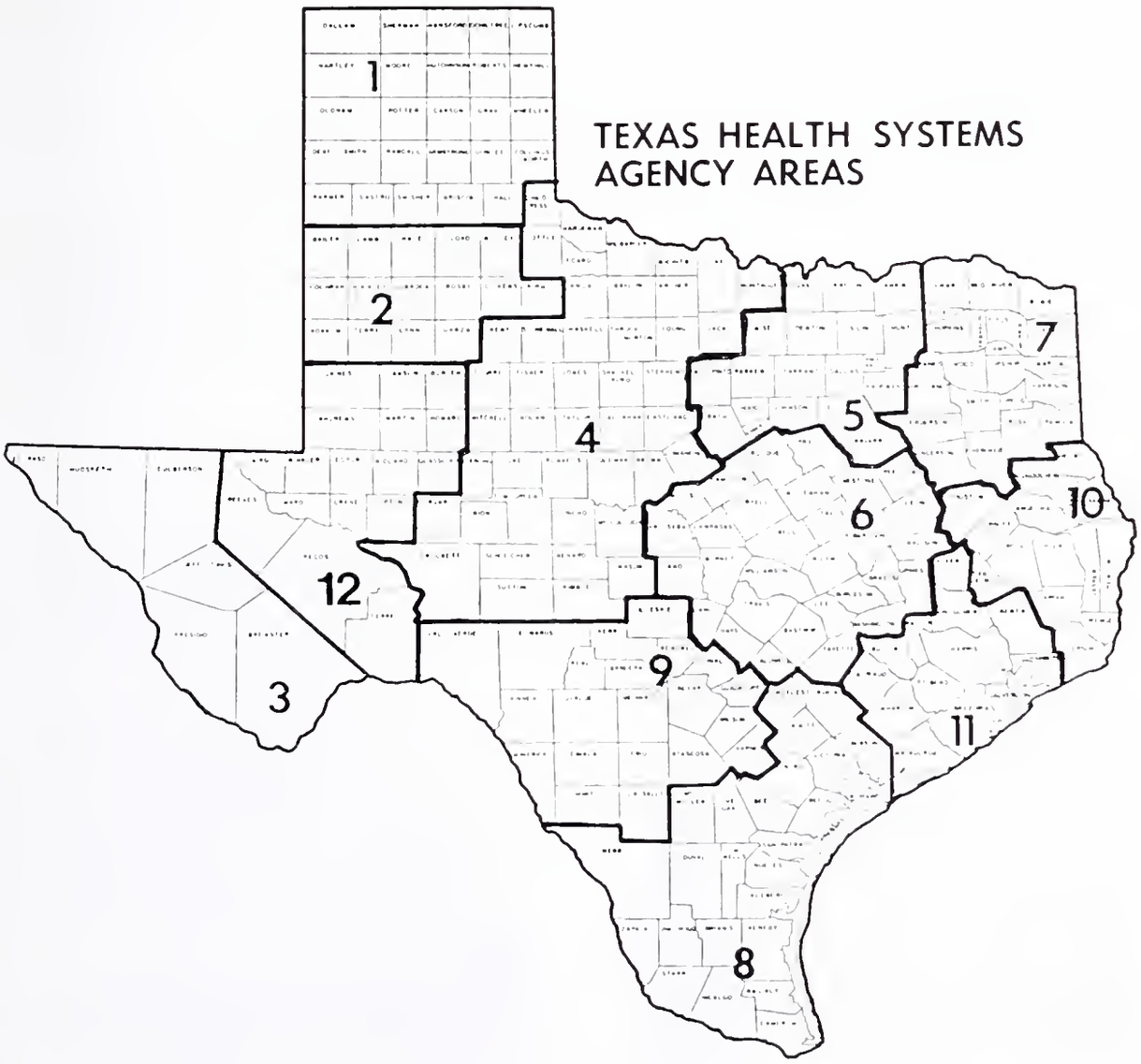
Health Systems Agencies

Also created by the national legislation in 1974 were HSAs. HSAs have now been de-

signated in Texas and are beginning work on area health plans, health studies, and other areas affecting health care.

Each of the twelve Texas HSAs has physician representation. Texas HSAs include the Panhandle Health Systems Agency, Amarillo; the South Plains Health Systems, Inc., Lubbock; the Health Systems Agency of West Texas, El Paso; the Tri-Region Health Systems Agency, Abilene; the Texas Area 5 Health Systems Agency, Inc., Irving; the Central Texas Health Systems Agency, Inc., Austin; the Northeast Texas Health Systems Agency, Inc., Marshall; the South Texas Health Systems Agency, Inc., Kingsville; the Camino Real Health Systems Agency, Inc., San Antonio; the Greater East Texas Health Systems Agency, Inc., Beaumont; the Houston-Galveston Area Health Systems Agency, Houston; and the Permian Basin Health Systems Agency, Midland.

In Texas there are eight non-profit private corporation HSAs and four public regional planning body HSAs.



ACRONYMS USED IN P.L. 93-641 THE NATIONAL HEALTH PLANNING AND RESOURCES DEVELOPMENT ACT OF 1974

HSA	Health Systems Agency (not Health Service Area)
HSP	Health Systems Plan
AIP	Annual Implementation Plan
SHCC	"SHICKS"—Statewide Health Coordinating Council
TDH	Texas Department of Health
HFC	Health Facilities Commission—3 man body appended to TDH which administers the facility Certificate of Need Program

HSAs are charged with a wide variety of health planning activities. Legislative mandates instruct the HSAs to improve the health care of area residents; increase the accessibility, acceptability, continuity, and quality of health care services; restrain cost increases; prevent unnecessary duplication of services; assemble and analyze data on planning and resource development; prepare an area health plan; review and approve or disapprove the use of federal funds in the area; and review and make recommendations to the state Texas Department of Health about the need for new institutional health services proposed for the area.

HSAs receive funding from federal grants to be used for personnel, data collection, planning and performance of HSA functions. Non-federal funds can be accepted under a number of restrictions.

Each HSA has a governing body of physicians, other health care providers, and consumers. Consumers must represent generally social, economic, linguistic, and racial populations of the area and must constitute a majority of the HSA governing body.

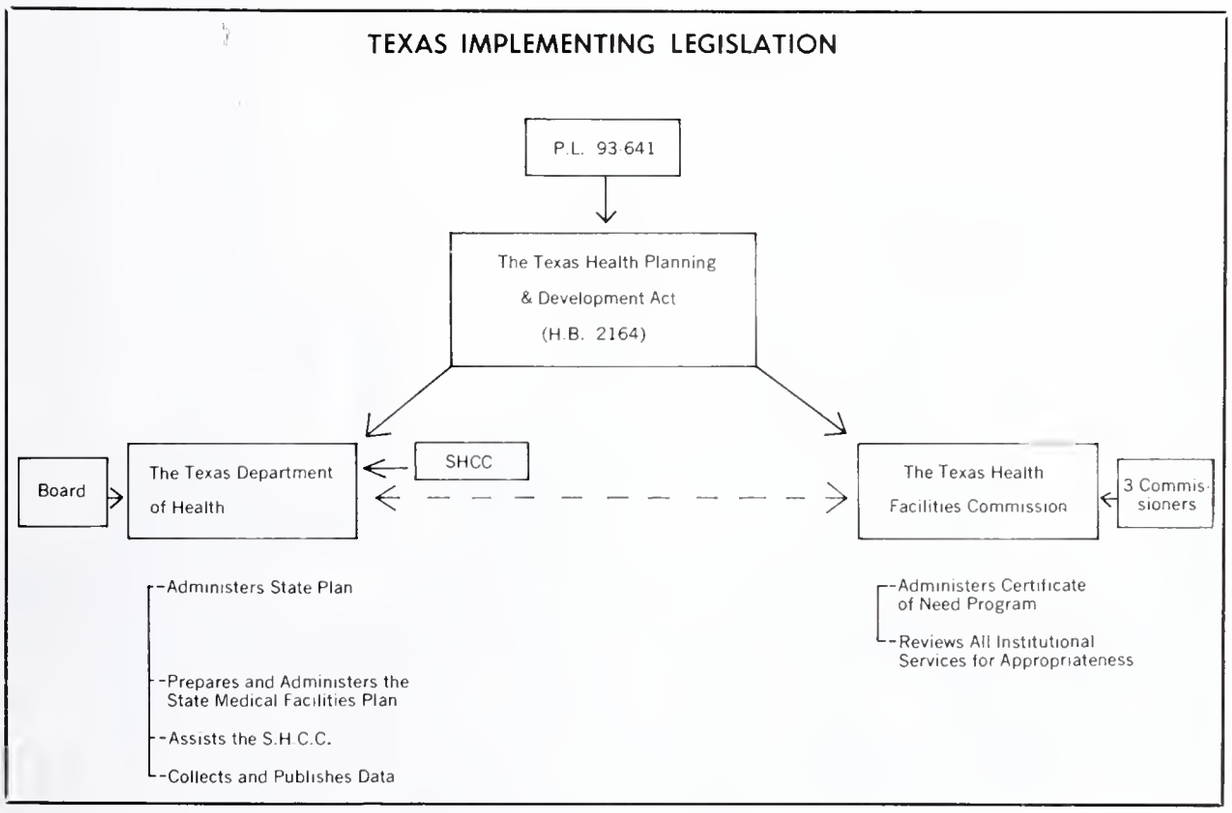
More specific aims of the HSAs are development of Health Maintenance Organizations, development of physician extender programs, and coordination and consolidation of institutional health services. HSAs work with the state health plan developed by the Texas Department of Health and the Statewide Health Coordinating Council.

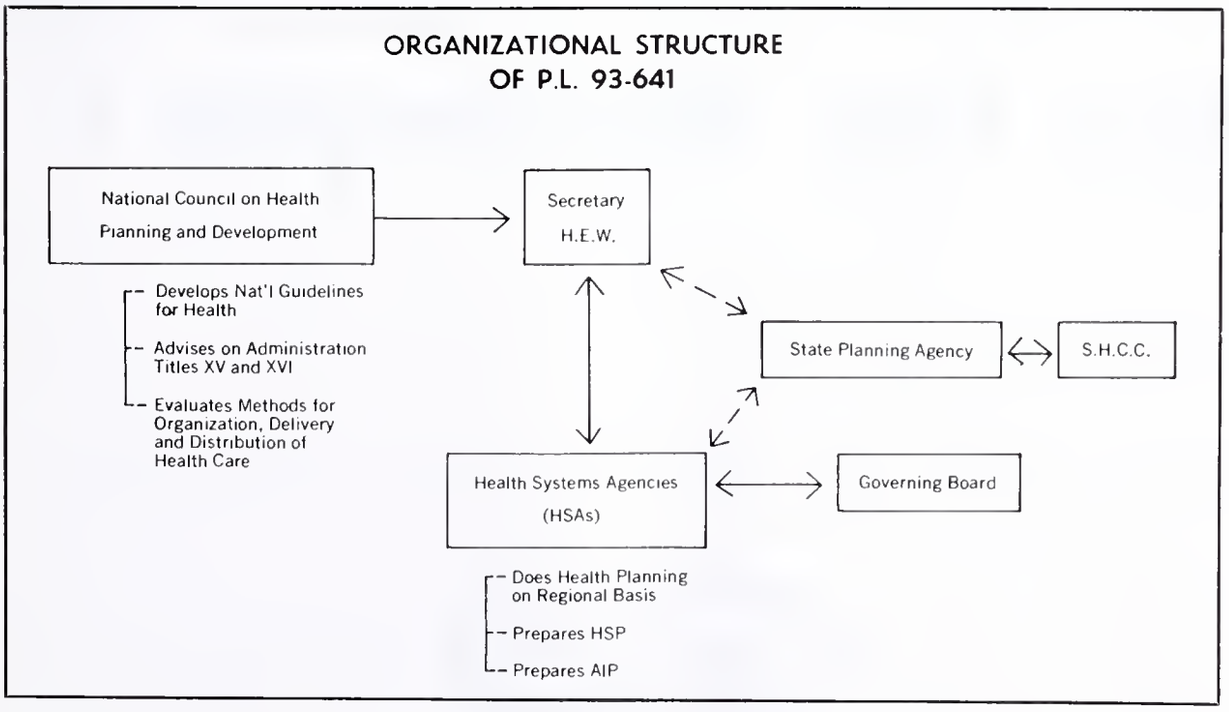
State health plan

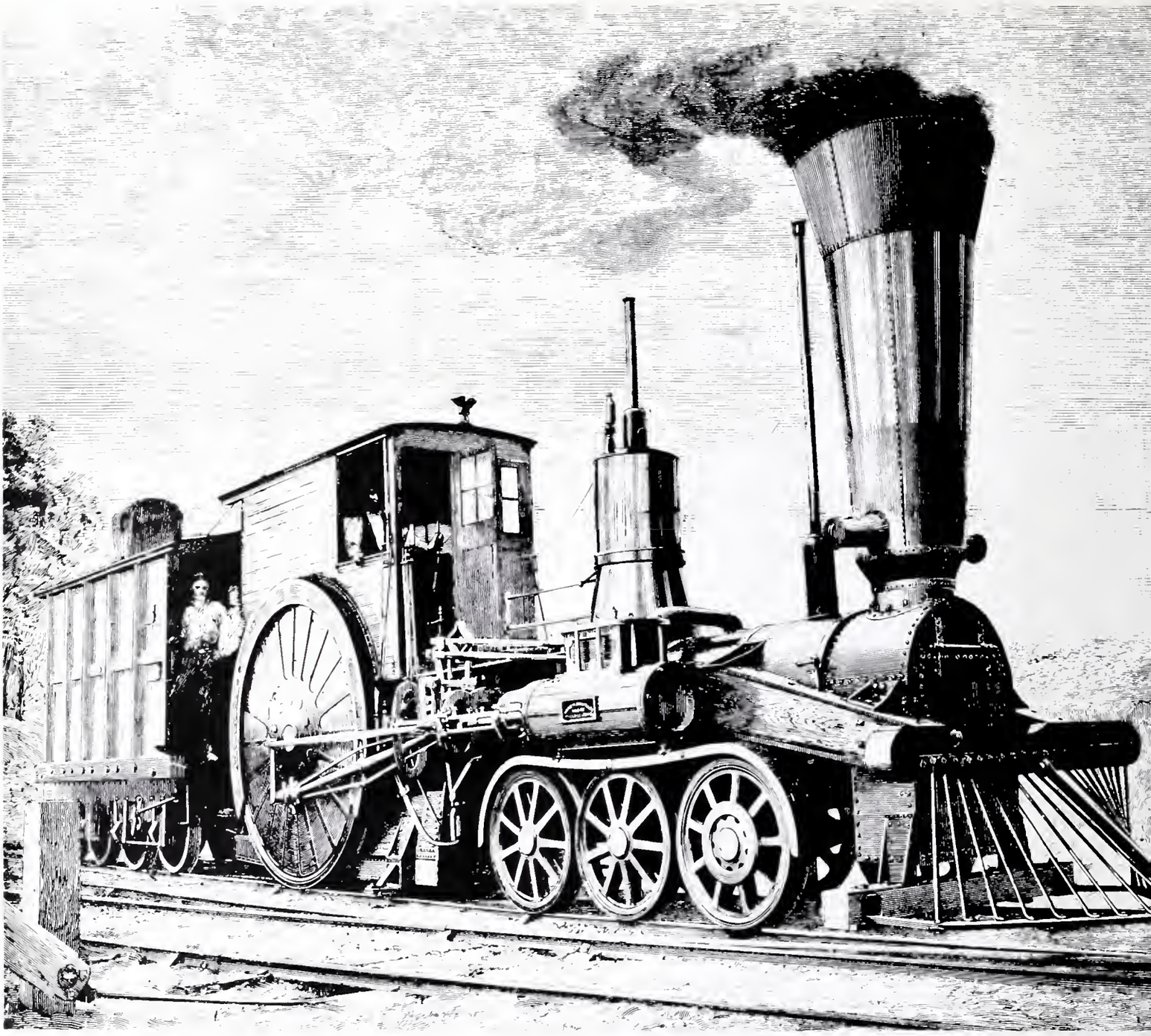
The state health plan coordinates the several HSA plans into a single statewide plan. The plan establishes statewide priorities for the health needs of the state's population, and seeks to make health services cost effective and sufficient.

The state health plan is being developed at this time by the Texas Department of Health. The health department has received health plans from each Texas HSA and recommendations from Texas health organizations including the Texas Medical Association.

The final plan will be presented to the Texas Statewide Health Coordinating Council for final approval.


TEXAS IMPLEMENTING LEGISLATION
P.L. 93-641
The Texas Health Planning & Development Act (H.B. 2164)
Board
The Texas Department of Health
SHCC
The Texas Health Facilities Commission
3 Commissioners
-Administers State Plan
-Prepares and Administers the State Medical Facilities Plan
-Assists the S.H.C.C.
-Collects and Publishes Data
-Administers Certificate of Need Program
-Reviews All Institutional Services for Appropriateness


ORGANIZATIONAL STRUCTURE OF P.L. 93-641
National Council on Health Planning and Development
Secretary H.E.W.
- Develops Nat'l Guidelines for Health
- Advises on Administration Titles XV and XVI
- Evaluates Methods for Organization, Delivery and Distribution of Health Care
State Planning Agency
S.H.C.C.
Health Systems Agencies (HSAs)
Governing Board
- Does Health Planning on Regional Basis
- Prepares HSP
- Prepares AIP



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MEDICINE AND THE LAW

THE **RES IPSA LOQUITUR** DOCTRINE IN THE TEXAS MEDICAL LIABILITY AND INSURANCE IMPROVEMENT ACT

The doctrine of *res ipsa loquitur* (the thing speaks for itself) has been expanded by some courts to such an extent that it has aggravated the malpractice insurance crisis.

Enacting the Medical Liability and Insurance Improvement Act of Texas,[1] the Texas Legislature realized this and included a section pertaining to *res ipsa loquitur* in the new legislation.

Section 7.01 of this act states, "that the common law doctrine of *res ipsa loquitur* shall only apply to health care liability claims against health care providers or physicians in those cases to which it has been applied by the appellate courts of this state as of the effective date of this subchapter."

The intent of the Texas Legislature was that the *res ipsa loquitur* doctrine not be expanded by Texas courts beyond the application of the doctrine as of Aug 27, 1977, the effective date of the medical malpractice insurance legislation.

Following is a summary of the application of the doctrine describing the outer limits of the use of the *res ipsa loquitur* doctrine prior to Aug 27, 1977.

The doctrine in Texas

Texas courts have not allowed juries to decide freely if a physician's conduct in a case was or was not negligent.

Rather, the standard of care governing a case is a professional standard, defined by the medical profession.

An expert witness must testify as to the level of care which the plaintiff patient should have received. The plaintiff by use of an expert witness must offer testimony to establish the standard of care against which the defendant's conduct can be evaluated by a jury. This testimony allows the inference to be made that the defendant violated the given standard of care and therefore was guilty of negligence.

If the plaintiff does not meet this burden, the case would be subject to proper motions resulting in a decision in the defendant's favor. There is a presumption that the physician has discharged his full duty, and affirmative proof must be given by the plaintiffs of a breach of duty resulting in injury to the plaintiff.

In certain exceptional cases, the courts have permitted the plaintiff to rely on an inference of negligence rather than direct expert testimony. This use of circumstantial evidence may permit the jury to conclude that the defendant was guilty of negligence.

The applicability of the *res ipsa loquitur* doctrine to medical malpractice cases has never been addressed by the Texas Supreme Court. Opinions from courts of civil appeals have ranged from a definitive statement that the doctrine is not applicable in medical cases to limited application in other instances.

Recent opinions involving *res ipsa loquitur* have indicated that for the doctrine to be applicable, certain requirements must be met. The case must include an occurrence that would not ordinarily happen in the absence of negligence; the instrumentality causing injury must be within the sole control of the defendant; the plaintiff must not have contributed to his own injury; and the nature of the malpractice and injuries must be within the common knowledge of laymen requiring no expert testimony.

A review of the Texas cases indicates that the courts have been concerned with two questions: (1) is the doctrine available in medical malpractice cases? and (2) in what type of case might the doctrine be available?

There appears to be no case in Texas where the plaintiff has produced qualified expert testimony showing that the patient's harm would not ordinarily follow in absence of negligence.

Thus, in the reported cases where consideration was made of the doctrine's application, there has been no expert evidence presented.

In Texas cases where no expert witness has been used, a limited number have permitted the use of the doctrine. These included foreign-object cases, and cases of injury to a portion of the body not under treatment.

Where *res ipsa loquitur* is found applicable in Texas, the effect is to raise a presumption of negligence, requiring the defendant to justify treatment and show the use of ordinary care.

The doctrine does not provide for shifting of the burden of proof to the physician, only the shifting of the burden of going forward with evidence on the point.

Since most defendant physicians can and do provide evidence of ordinary care, the practical effect of the doctrine is to avoid the direction of a verdict for the defendant due to no expert testimony and permit the jury to pass upon the evidence.

Other states

Other states have applied the doctrine more liberally than in Texas. These circumstances include a case where a patient was unconscious, an injury occurred, and the patient was not required to be specific about who or what caused the injury; a case involving a hysterectomy where there was an inadvertently sutured right ureter, corrective surgery was unsuccessful, kidney removal was required, and expert testimony showed that damage to ureters is a hazard of hysterectomy; and a case involving a 67-year-old woman who had a bone biopsy and who lifted her leg causing a fracture, in spite of dissent that it was common knowledge that lifting a weakened leg is a risk.

The *res ipsa loquitur* doctrine has also been applied in cases in which common knowledge was deemed competent to say the incident was more likely than not the result of negligence and in an allergy case where the court said it is a matter of common knowledge that injections do not cause trouble unless they are unskillfully done or there is something wrong with the serum.

The results of other jurisdictions' treatment of the doctrine permitting an inference resting on either common knowledge or expert testimony were results the Texas Legislature sought to avoid in Texas. The legislature found that this type of risk shifting by common law was a partial cause of the medical malpractice insurance crisis.

The Texas Legislature felt that the current Texas approach to the *res ipsa loquitur* doctrine was proper. Due to the medical malpractice insurance crisis, the legislature felt it would not be justifiable for Texas courts to increase the risk to physicians.

Rather than codify the common law doctrine by statute, the legislature dictated that Texas' current common law approach of limited use of the *res ipsa loquitur* doctrine is proper. The legislature further dictated that the courts should not expand the doctrine beyond current application.

Summary

This portion of the Medical Liability and Insurance Improvement Act of Texas should provide direction to Texas courts and eliminate the confusion and misunderstanding surrounding the application of the *res ipsa loquitur* doctrine.

It should also prevent further erosion of the presumption that the physician has discharged his full duty and the requirement that a plaintiff prove a departure from such duty by means of an expert witness.

Ace Pickens
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

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[1]HB 1048, 65th Texas Legislature; Article 4590i VATCS.

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Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg. Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

Dosage and Administration: Oral: 10 to 20 mg., three or four times daily. Intramuscular: 5 to 10 mg. (1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Parenteral administration is not recommended in the presence of hypotension or tachycardia.

Intravenous administration should not be given because of increased likelihood of side effects.

Adverse Reactions: On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.

Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.

Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

Supplied: Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

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Precautions: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.
Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea and vomiting. The frequency of adverse reactions is related to the serum theophylline level and are not usually a problem at serum theophylline levels below 20μg/ml.
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"Be sure and ask them how they get their sheets so white."

Deaths

B. E. Galloway, MD

Ballard Edelen Galloway, MD, died Oct 8, 1976, in San Antonio.
Dr Galloway, a family physician, was born in 1888 in Fort Foote, Md. He attended Washington College, Baltimore, Md, before entering Georgetown University Medical School. He received his MD degree in 1913. His internship was at St Francis Hospital, Jersey City, NJ, and his residency was at Lying in Hospital, New York. Dr Galloway practiced in El Paso, Tex, and in Mexico before moving to San Antonio in 1936. He retired in 1969.
He was head of the Obstetrics Department at Santa Rosa Hospital from 1939 to 1945, and was a lifetime member of the American Medical Association and Bexar County Medical Society.
Surviving Dr Galloway are his daughters, Mrs Irene Smith and Mrs Ruth Peyton, San Antonio; Mrs Dorothy Jane Moroy, Houston; Mrs Mary E. Rutherford, Castro Valley, Calif; sons, Harry M. Galloway and Ralph K. Galloway, San Antonio; and Ballard E. Galloway, Jr, Moorpark, Calif; brothers, A. K. Galloway, Dallas; Robin A. Galloway, San Francisco; 30 grandchildren and 25 great-grandchildren.

E. E. Howerton, MD

Ernest E. Howerton, MD, an honorary member of Texas Medical Association, died Nov 20, 1976.
Dr Howerton, a native of Rio Grande City, Tex, had practiced in San Antonio since 1934. He attended The University of Texas during 1922-1925. In 1930, he received his MD degree from Baylor College of Medicine.
Dr Howerton was a member of the Bexar County Medical Society. During 1941-1945, he served as a flight surgeon in the US Army.
Surviving the physician are his wife, Bessie Howerton, San Antonio; son, Ernest E. Howerton, Jr, MD, Houston; and daughters, Mrs Betsy Babbington, Chevy Chase, Md, and Mrs Carolyn Schaffer, Danville, Calif.

H.O. Krempin, MD

Herman Otis Krempin, MD, a Dallas pediatrician, died July 22, 1977.
Dr Krempin, 56, had practiced medicine in Dallas for 27 years. He was director of the Methodist Hospital Department of Pediatrics and clinical professor of pediatrics at The University of Texas Health Science Center.
A native of Giddings, Tex, Dr Krempin attended San Angelo Junior College and The University of Texas at Austin. He was graduated from The University of Texas Medical Branch in Galveston in 1946. He served an internship at St Paul Hospital in Dallas.
While in the US Army for two years, Dr Krempin held a pediatric residency at Brooke General Hospital, Fort Sam Houston. He completed his pediatric training at Children's Medical Center, Dallas. He began his pediatric practice in 1950 at the Physicians and Surgeons Clinic, Dallas.
A past president of the staff at Children's Medical Center and of Dallas Pediatric Society, Dr Krempin was a member of Dallas County Medical Society, American Medical Association, Texas Pediatric Society, and the American Academy of Pediatrics. He served on the Perinatal Health Committee of the Dallas County Medical Society (1963-1974) and chaired a special committee to assist the Dallas Independent School District in seeking a full-time director of health services.[2]
Dr Krempin also was a former president of the Optimist Club of Oak Cliff and a member of Kessler Park United Methodist Church.
Surviving are his wife, Mary Ann Kenney Krempin, Dallas; daughter, Mrs Ellen Thomas, San Antonio; parents, Mr and Mrs Adolph Krempin, Rowena, Tex; sis-

ter, Mrs Jennie Smith, Coleman, Tex; brother, Myron Namken, Las Cruces, NM; and two grandchildren.

A. J. Rice, MD

Albert John Rice, MD, 70, died Jan 15, 1977 in Kerrville, Tex.
Dr Rice, a retired Air Force colonel, practiced in the Georgetown area for 25 years. He was born in Ardmore, Okla, and received his college and medical education in Dallas. He was graduated from Southern Methodist University in 1927, and from Baylor University Medical School in 1931. His internship was at Providence Hospital, Waco.
The general practitioner had worked in Douglas, Ariz, San Francisco, and Panorama City, Calif, before moving to Georgetown in 1932.
Dr Rice began his active military service in 1941. He served in the United States, as well as in the Middle East and Europe. He was separated from the military in 1946, and remained in the U S Air Force Reserve until 1966.
Dr Rice was a past president of the Williamson County Medical Society and a former member of Texas Medical Association's House of Delegates.
Surviving are his wife, Letona Lee Rice, Kerrville; son, MSgt James D. Rice, Austin; two grandchildren; and numerous nieces and nephews.

H. W. Sybilrud, MD

Hjalmer Waldemar Sybilrud, MD, died Oct 2, 1976, in McAllen. He was 82.
Dr Sybilrud, an honorary member of Texas Medical Association, had practiced in McAllen since 1946. He was a native of New Richland, Minn. In 1916 he received a BS degree from the University of Minnesota. He received his MD degree from the University of Minnesota Medical School in 1918. His internship was served while in the US Navy during 1918-1919. Dr Sybilrud specialized in internal medicine.
The doctor's professional memberships included the 50 year Club of American Medicine, American Medical Association, and Hidalgo-Starr County Medical Society. He also was a member of the Valley Heart Association, and the recipient of a certificate of merit from former president Gerald R. Ford. Dr Sybilrud, who served in the Navy during 1941-1945, was a captain in the Naval Reserve until his retirement.
Surviving are his wife, Blanche Swanson Sybilrud, McAllen; daughters, Mrs Betty Judd, San Bernardino, Calif, and Mrs Sue Smith, Santa Ana, Calif; sisters, Mrs Rosalie Johnson, Flint, Mich, and Mrs Elsie Hoidale, Wichita, Kan; and brother, Reuben Sybilrud, New Richland, Minn.

O.J. Wollenman, Jr, MD

Dr Oscar John Wollenman, Jr, a Fort Worth pathologist, died Oct 9, 1977 at the age of 65.
Dr Wollenman, director of laboratories at St Joseph Hospital, had lived in Fort Worth since 1952. A native of Corder, Mo, he was graduated from Central College in Fayette, Mo, and received his medical degree in 1938 from Vanderbilt University Medical School in Nashville, Tenn. His internship was at Vanderbilt University Hospital and his residency was at Mallory Institute, Boston City Hospital.
Dr Wollenman had been clinical associate professor in pathology at UT Southwestern Medical School in Dallas since 1946. He was founding president of the board of directors of the Carter Blood Center and a member of River Crest Country Club.
He also was past president of the Texas Society of Pathologists, and a member of the American Association of Pathologists and Bacteriologists, International Acad-

emy of Pathologists, American Medical Association, Tarrant County Medical Society, American Association of Blood Banks, and Texas Association of Blood Banks. He was a fellow of the College of American Pathologists and the American Society of Clinical Pathologists.

Surviving Dr Wollenman are his wife, Jane Wollenman, Fort Worth; sons, David Wollenman, Dallas; Paul Wollenman, Lake Worth, Fla; Tim Wollenman, Fort Worth; and R.F. Ziegler, Dallas; daughter, Mrs Carol Portwood, Fort Worth; and two grandchildren.

RECENTLY DECEASED MEMBERS OF THE TEXAS MEDICAL ASSOCIATION

B.E. GALLOWAY
San Antonio, 1888-1976

E.E. HOWERTON
San Antonio, 1905-1976

H.O. KREMPIN
Dallas, 1921-1977

A.J. RICE
Kerrville, 1906-1977

H.W. SYBILRUD
McAllen, 1894-1976

O.J. WOLLENMAN, JR
Fort Worth, 1912-1977

IN MEMORIAM

The Memorial Library of the Texas Medical Association stands as a permanent memorial to physicians who have served their patients, their profession and the people of Texas so faithfully over the years.

The Library ranks as one of the finest in the nation. It is providing more than 10,000 reference requests, 3,500 tapes and cassettes, and 2,500 films each year to physicians, students, and to those seeking information related to medicine and health care. The resources of the Library include 60,000 volumes, 400 tapes, and 300 scientific and lay films; more than 1,300 professional journals are received monthly. Services are provided without charge.

Contributions to the Texas Medical Memorial Library Fund are invested in a permanent fund and are managed by the Board of Trustees of the Texas Medical Association. Dividends are used to purchase new books and to operate the Library.

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Texas Physicians' Directory

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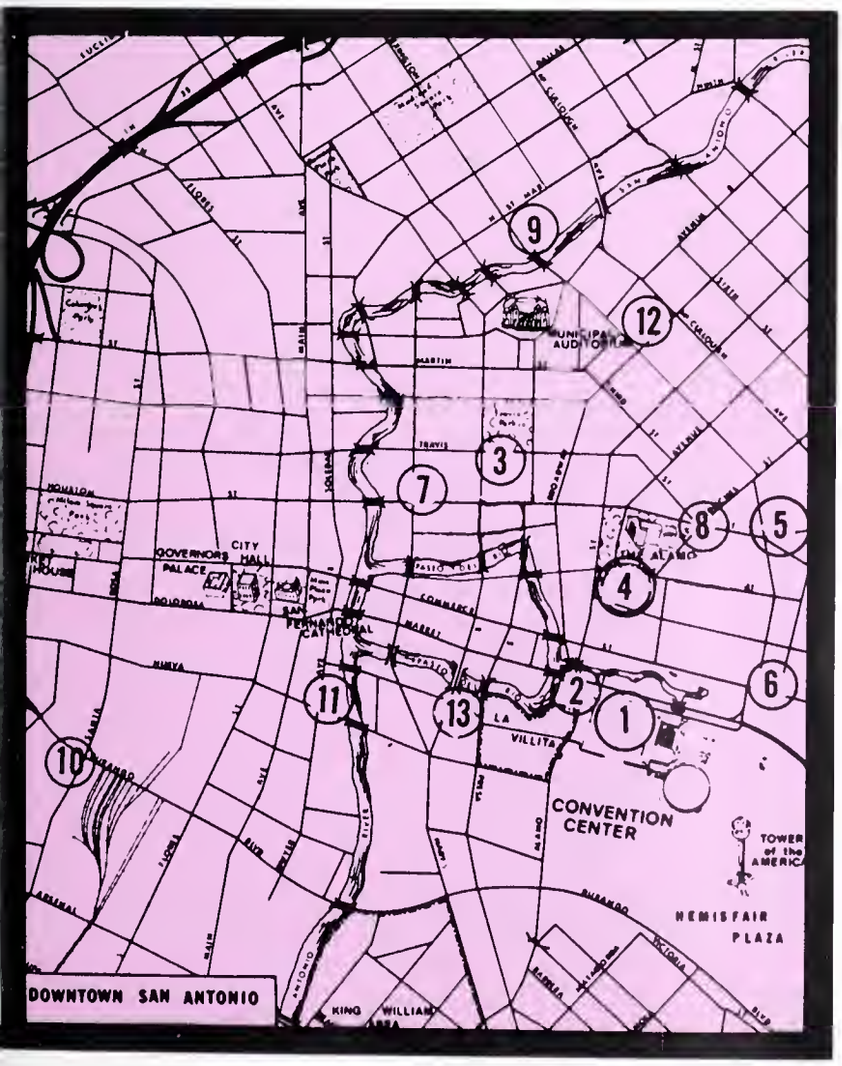

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1801 NORTH LAMAR BOULEVARD, AUSTIN, TEXAS 78701

NUMBER OF TICKETS	FUNCTIONS AND PRICE (inclusive of tax and gratuity)	AMOUNT
_____	GERMAN MAY FEST—Friday (May 12) @ $17.50 per person	_____
_____	GENERAL MEETING LUNCHEON—Friday (May 12) @ $6.50 per person	_____
_____	GENERAL MEETING LUNCHEON—Saturday (May 13) @ $6.50 per person	_____
	CHECK ENCLOSED FOR TOTAL	_____

ADVANCE REGISTRATION FORM

BE SURE TO FILL OUT THE ADVANCE REGISTRATION FORM ON THE OTHER SIDE AND RETURN PRIOR TO APRIL 25.

NAME _____

ADDRESS _____

_____

CITY _____ ZIP _____

SPECIALTY _____

CONVENTION ADDRESS _____

_____

I will pick up my convention materials at:

☐ San Antonio Convention Center (Wednesday-Saturday)

☐ St. Anthony Hotel (Wednesday only)

Mail to:
Texas Medical Association
1801 North Lamar Boulevard
Austin, Texas 78701

PLEASE PLACE A CHECK MARK ☑ IN THE APPROPRIATE REGISTRANT BOX BELOW:

☐ MEMBER PHYSICIAN/MEDICAL STUDENT
(check below, if applicable)

_____ Intern/Resident
_____ Medical Student
_____ Member Speaker
_____ Scientific Exhibitor
_____ President, County Medical Society
_____ Delegate
_____ Alternate
_____ Councilor
_____ Vice Councilor
_____ TMA Council Chairman

☐ NONMEMBER PHYSICIAN/MEDICAL STUDENT
(check below, if applicable)

_____ Guest Speaker
_____ Scientific Exhibitor
_____ Special Essayist
_____ Intern/Resident
_____ Medical Student

☐ GUEST Please indicate name of firm or institution you represent and program you will be attending.

_____
(firm or institution)

_____
(TMA program/seminar to attend)

ADVANCE REGISTRATION FORM

PLEASE PRINT OR TYPE—THREE CHOICES

1st _____

2nd _____

3rd _____

ROOM WILL BE OCCUPIED BY:

NAME _____

STREET _____

CITY _____

STATE _____ ZIP _____

ADDITIONAL OCCUPANTS _____

_____

TYPE OF ACCOMMODATIONS

Single(s) _____

Twin(s) _____

Double(s) _____

Suite(s) _____

DATE ARRIVING

_____

HOUR _____ AM PM

DATE DEPARTING

_____

REQUEST FOR HOTEL OR MOTEL RESERVATIONS

TEXAS MEDICAL ASSOCIATION ANNUAL SESSION MAY 11-14, SAN ANTONIO

MAKE YOUR RESERVATIONS NOW!

Reservations not accepted by telephone. Select your first, second and third choice of hotels and motels from the list below, complete the housing request card and mail it to the San Antonio Convention and Visitors Bureau. Preferences will be honored as far as possible, and confirmation of reservations will be sent directly to you from the hotel or motel.

2—Hilton Palacio del Rio
Scientific Sessions Co-Headquarters

3—St. Anthony Hotel
FILLED
Business Sessions

4—Menger Hotel & Motor Inn
Scientific Sessions Co-Headquarters

5—Downtowner Motel

6—La Quinta-Convention Center

7—Gunter Hotel

8—Crockett Motor Inn

9—El Tropicano Motor Hotel

10—Holiday Inn-Alamo Area

11—TraveLodge-Court House Square

12—Alamo TraveLodge

13—Granada Inn

ADVANCE REGISTRATION AND TICKET ORDERS

Save time and effort by registering in advance. Fill out the card at below left, mail it to TMA, and your registration packet will be waiting for you. There is no registration fee for TMA members. Registration materials may be pcked up at the San Antonio Convention Center and the St. Anthony Hotel. Don't forget the ticket order form on the back of the advance registration card.

GENERAL MEETING LUNCHEONS

Friday, May 12, 12:15 p.m., San Antonio Convention Center
Luncheon speaker will be Edward Teller, Ph.D., Nuclear Physicist, Lawrence Livermore Laboratories, Livermore, California.

Saturday, May 13, 12:15 p.m., San Antonio Convention Center
Speaker pending.

DELEGATES' LUNCHEON

Thursday, May 11, 1 p.m., San Antonio Convention Center
Luncheon speaker will be John H. Budd, M.D., President, American Medical Association, Cleveland, Ohio

MAY FEST

Join your friends for TMA's own special German May Fest, Friday, May 12, 7-11 p.m.—complete with beer, sausages, and an oompah band.

GUEST SPEAKERS

HARLAN C. AMSTUTZ, M.D.
Los Angeles, Calif.
orthopaedics

CURTIS P. ARTZ, M.D.
Charleston, S.C.
surgery

SUSAN P. BAKER, M.P.H.
Baltimore, Md.
public health

RODNEY BLUESTONE, M.B.
Los Angeles, Calif.
internal medicine (rheumatology)

LLOYD L. BRANDBORG, M.D.
San Francisco, Calif.
internal medicine (gastroenterology)

CHRISTOPHER W. BRYAN-BROWN, M.D.
New York, N.Y.
anesthesiology

BENJAMIN F. BYRD, JR., M.D.
Nashville, Tenn.
surgery

ROBERT W. CANTRELL, M.D.
Charlottesville, Va.
otolaryngology

STEVEN T. CHARLES, M.D.
Memphis, Tenn.
ophthalmology

DAVID A. CULP, M.D.
Iowa City, Iowa
urology

JOHN K. DAVIDSON III, M.D., Ph.D.
Atlanta, Ga.
internal medicine (endocrinology)

JOHN L. DECKER, M.D.
Bethesda, Md.
internal medicine (arthritic and metabolic diseases)

JOHN W. DUCKETT, JR., M.D.
Philadelphia, Pa.
pediatric urology

THOMAS F. DUTCHER, M.D.
Royal Oak, Mich.
hematopathology

JOHANN L. EHRENHART, M.D.
Iowa City, Iowa
thoracic and cardiovascular surgery

GARY G. FERGUSON, M.D.
London, Ont., Can.
neurosurgery

LLOYD J. FILER, JR., M.D., Ph.D.
Iowa City, Iowa
pediatrics

FRANK A. FINNERTY, JR., M.D.
Washington, D.C.
internal medicine (cardiology)

J. BRYON GATHRIGHT, JR., M.D.
New Orleans, La.
colon and rectal surgery

STANLEY M. GOLDBERG, M.D.
Minneapolis, Minn.
colon and rectal surgery

DANIEL HALPERN, M.D.
Minneapolis, Minn.
physical medicine and rehabilitation

ROBERT N. HAMBURGER, M.D.
La Jolla, Calif.
pediatrics, allergy and immunology

SAMUEL L. KATZ, M.D.
Durham, N.C.
pediatrics

PAUL KOTIN, M.D.
Denver, Colo.
occupational medicine

KERMIT E. KRANTZ, M.D.
Kansas City, Kan.
obstetrics and gynecology

DAVID J. KUDZMA, M.D.
Miami Beach, Fla.
internal medicine (endocrinology)

HERBERT G. LANGFORD, M.D.
Jackson, Miss.
internal medicine (endocrinology)

JOHN M. LORE, JR., M.D.
Buffalo, N.Y.
otolaryngology

HOWARD I. MAIBACH, M.D.
San Francisco, Calif.
dermatology

WILLIAM MARTEL, M.D.
Ann Arbor, Mich.
radiology

KENNETH M. MOSER, M.D.
San Diego, Calif.
internal medicine (pulmonary diseases)

CARLOS PESTANA, M.D., Ph.D.
San Antonio
surgery

WILLIAM H. POWERS, M.D.
Los Angeles, Calif.
otolaryngology

JAMES T. ROBERTSON, M.D.
Memphis, Tenn.
neurosurgery

DAVID F. REESE, M.D.
Rochester, Minn.
diagnostic radiology

BURTON A. SANDOK, M.D.
Rochester, Minn.
neurology

JOHN A. SBARBARO, M.D., M.P.H.
Denver, Colo.
public health and preventative medicine

REYNOLD T. SCHMIDT, M.D.
Los Angeles, Calif.
occupational medicine

PETER H. SCHUR, M.D.
Boston, Mass.
internal medicine (rheumatology and immunology)

JAY T. SHURLEY, M.D.
Oklahoma City, Okla.
psychiatry, neurology

ARNOLD SLADEN, M.D.
Pittsburgh, Pa.
anesthesiology

J. LAWTON SMITH, M.D.
Miami, Fla.
ophthalmology

GORDON L. SNIDER, M.D.
Boston, Mass.
internal medicine (pulmonary diseases)

H. WILLIAM STRAUSS, M.D.
Boston, Mass.
nuclear medicine

ROBERT D. TERRY, M.D.
The Bronx, N.Y.
anatomic pathology and neuropathology

LOUIS TOBIAN, JR., M.D.
Minneapolis, Minn.
internal medicine (nephrology)

PAUL M. WEEKS, M.D.
St. Louis, Mo.
plastic and reconstructive surgery

FRANK M. YATSU, M.D.
Portland, Ore.
neurology

Classified Advertising

Physicians Wanted

A BETTER PLACE TO PRACTICE MEDICINE. Enjoy practicing medicine in a warm climate, and with the friendly people in Wichita Falls, Texas. Our brand new 55,000 square foot clinic building has new offices and examining rooms ready for specialists in internal medicine, family practice, and diagnostic radiology. We are a multi-specialty group located in a city of 100,000 people in North Central Texas—close to everything—but away from the big city problems. Call collect Dr. David M. Pogue, at 817-766-3551, at 501 Midwestern Parkway, East, Wichita Falls, Texas 76302.

WANTED ORTHOPEDIC SURGEON TO JOIN multispecialty clinic with facilities for doing all types of surgery in new hospital as well as office in new clinic building. Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED ONE OR TWO BOARD ELIGIBLE FAMILY PRACTITIONERS to come into a growing multispecialty clinic. Many benefits that only a group practice can provide. Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED BOARD ELIGIBLE OB-GYNECOLOGIST to join two others in the department with all new facilities in hospital and clinic. Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: ANESTHESIOLOGIST to join growing multispecialty clinic with excellent facilities. New clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: OPHTHALMOLOGIST TO JOIN growing multispecialty clinic with excellent facilities. New clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: INTERNIST, preferably with subspecialties in gastroenterology, pulmonary diseases, rheumatology or cardiology to join growing multispecialty clinic. Excellent facilities in new clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

PHYSICIAN AND PSYCHIATRISTS—general practice, pediatricians and psychiatrists for vacancies in state mental hospitals and state schools for mentally retarded. Salaries: $31,000 to $38,000 plus $1,000 for board certification plus up to $3,000 supplement in certain areas; usual State benefits. Liability protection provided under Texas law. Texas license or reciprocity required. Contact the Personnel Specialist, Texas Department of MHMR, P.O. Box 12668, Capitol Station, Austin, Texas 78711. 512-454-3761. An equal opportunity, affirmative action employer.

NEAR GULF COAST: Several specialties including family practice. Two accredited district hospitals, 1968 additions. Excellent potential to double present staff of 20. Offices available. Great rural place to raise family. Water recreation, hunting. 75 miles west of Houston. Steve Walters, Administrator, Box 910, Bay City, Texas 77414, 713-245-6383.

WANTED: PEDIATRICIAN to join growing multispecialty clinic with excellent facilities. New Clinic building adjacent to new hospital. Many benefits that only a group practice can provide. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

GENERAL PRACTITIONER—FAMILY PRACTICE: Clinic, including lab and x-ray. Join internist and general practitioner in busy practice. Salary and benefits negotiable with subsequent partnership offered. Contact Ribelles Clinic Associates, 9801 Katy Freeway, Houston, Texas 77024. 713-461-0072.

EMERGENCY DEPARTMENT GROUP, HOUSTON AREA, EXPANDING—choice of salary or fee-for-service with guarantee—malpractice paid—Call 713-861-7942 or write Greater Houston Emergency Physicians Association, 625 West 19th, Houston, Texas 77008.

FAMILY PRACTICE—In small city South Central Texas; San Antonio, Austin area. Drawing area 22,000. 50-bed new hospital under construction. Financial assistance available. William B. Watts, Administrator, Gonzales County Hospital District, Gonzales, Texas 512-672-2811.

GENERAL SURGEON: American graduate, preferably just out of residency to do all major surgery for well established clinic. Please reply to Ad-722, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTICE, GENERAL PRACTICE—Wanted immediately to join physician staff in rural community one-hour from Dallas-Fort Worth area. Extremely active practice with good benefits and an opportunity to enter into the corporation. Practice is with physicians clinic, 26-bed hospital, and 42-bed nursing home within the same building complex. Excellent arrangement for family practice. For further information contact Roger E. Marks, M.D., 817-897-2215 or 817-897-4436; Glen Rose, Texas.

GENERAL INTERNIST AND FAMILY PRACTITIONER NEEDED to join nine man group in Clifton, Texas. Located in the heart of Texas, 30 miles NW of Waco; 15 miles from Lake Whitney. Good fishing; excellent hunting; new modern golf course. Excellent schools and churches in a growing progressive community and directly associated with a 75 bed, Hill Burton hospital which is fully accredited by the joint commission. Terms open at first with partnership in future. Please contact V. D. Goodall, M.D., Clifton Medical & Surgical Clinic Association, Clifton, Texas 76634. Telephone 817-675-8621 or 675-3113.

GENERAL PRACTITIONER NEEDED: To work with general surgeon doing GP work. Excellent opportunity for a doctor desiring family practice work. May start with salary of $45,000 per year negotiable. City has population of 9,000 with trade area of 25,000 to 30,000. Contact Chris S. Cruzcosa, M.D., 300 S. 5th Street, Carrizo Springs, Texas 78834. 512-876-5236.

PUBLIC HEALTH DIRECTOR: The City of Austin, Texas, is accepting applications for the position of Director, Austin-Travis County Health Department. Full medical and administrative direction of local public health activities in a $4 million department of the City. Must be an MD with administrative experience; Texas license and MPH preferred. Salary starts at $35,000+, depending upon qualifications. Send resume to: Dan H. Davidson, City Manager, P.O. Box 1088, Austin, Texas 78767; 512-477-6511. Equal employment opportunity.

PHYSICIANS WANTED—Growing hospital in progressive East Texas town near metroplex needs ambitious physicians to join staff. Write Paul Bennet, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647.

INDUSTRIAL PHYSICIAN TO JOIN multispecialty group as an addition to a large industrial department. Some surgical training desired; family practice boards acceptable. Work consists of pre-employment physicals, industrial injuries, and family practice. Salary and partnership negotiable and competitive. Keogh plan available. Adequate time off. Modern clinic facilities. Growing town of 125,000. Send curriculum vitae and references to Harry Ledbetter, M.D., 1518 Tenth Street, Wichita Falls, Texas 76301.

TEXAS, NORTHEAST: Emergency physicians. Immediate openings available in established ACEP oriented group. Positions in several communities available. Prefer career-oriented emergency MDs. Additional training and/or experience required. Flexible schedule, fee-for-service with guarantee and usual fringes including malpractice insurance. Write: Emergency Medicine Consultants, 3600 Gaston Avenue, Dallas, Texas 75246, or call 214-823-6850.

HOUSTON EMERGENCY PHYSICIANS ASSOCIATES has immediate openings for career oriented emergency physicians with surgical or emergency medicine backgrounds. Continuing education required. Teaching and non-teaching positions available in the city limits of Houston, Texas. Our physicians' present salaries are between $50,000 and $80,000 per annum based on tenure and experience. Flexible scheduling to allow for vacations and continuing education. Benefits include malpractice insurance, major medical, life, disability income. Call or send CV: Houston Emergency Physicians Associates, P. O. Box 36949, Houston, Texas 77036; 713-776-1081.

NEED FULL TIME PHYSICIAN at medical facility of Gary Job Corps Center in resort community of San Marcos, Texas. Involvement is 8 a.m. to 5 p.m., Monday through Friday and on call alternate nights and weekends. Fringe benefits include a desirable housing arrangement and prepaid malpractice insurance. Salary upper $30s and negotiable. Contact Dr. M. D. Heatly, 512-396-6570 or at night 392-3044; or Mr. Al Martinez, Hospital Administrator, 396-6422; or write P.O. Box 645, San Marcos, Texas 78666.

INTERNIST—In small city South Central Texas; San Antonio, Austin area. Drawing area 22,000. 50-bed new hospital under construction. Financial assistance available. William B. Watts, Administrator, Gonzales County Hospital District, Gonzales, Texas. 512-672-2811.

TEXAS PRACTICES. Economic and professional climate excellent. Have requests from physicians in Texas communities for additional physicians, usually in the same field. City suburbs, small and medium size towns. Attractive financial guarantees. No fee to physician candidate. Please write with C.V. and preferences to Sanford Smith, Professional Practice Management, Inc., 1102 Kingwood Drive, Humble, Texas 77339.

GENERAL PRACTITIONER TO DIRECT ALCOHOLISM PROGRAM. Building a better and more dynamic program in state hospital. Ideal family living town of 30,000—good schools, recreation, mild west Texas weather. Salary $37,000 to $40,000. Texas license required. Call or write: Douglas Cheney, Personnel Director, Big Spring State Hospital, Box 231, Big Spring, Texas 79720. 915-267-8216.

CHILD PSYCHIATRY RESIDENCY may be taken before or after Adult Psychiatry training. Academic program in child development, family therapy, genetic and metabolic disorders, behavior therapy, group therapy, psychopharmacology and ethology. Basic clinical orientation in child development with intensive individual supervision in psychoanalytic and eclectic modalities and pediatric neurology. Research opportunities in genetic and metabolic disorders, child development, linguistic anthropology, community services, and other fields. Excellent opportunities in teaching, administration, inpatient and outpatient clinical programs. New 60-bed inpatient unit for children. Liaison with graduate schools, medical school and community programs. Stipends: first year, $15,000; second year, $16,000; third year, $17,000; fourth year, $18,000. Contact Anthony P. Rousos, M.D., Director of Residency Training, Austin State Hospital, 4110 Guadalupe, Austin, Texas 78751.

EXPANDING MEDICAL CLINIC has opening for internal medicine, OB-GYN and family practice. Apply: D. McCann, 2616 North Oregon, El Paso, Texas 79902; telephone 915-532-5232.

CLASSIFIED AD RATES & DATA: Classified Advertising sells for $10.00 per issue for 50 words or less, payable in advance. Ad numbers can be substituted for formal addresses upon request at no extra cost. Name and address of ad number listings can not be given out unless specific permission to do so has been given. The advertising office will not contact ad number holders except by mail. Copy deadline is the 5th of the month preceding publication. Send copy to Advertising Manager, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

PRACTICE in the most sophisticated Texas city. Enjoy the small town atmosphere. Explore Pleasant Grove Hospital, first medical facility ever for 170,000 citizens in Southeast Dallas County. 172-bed hospital, now open, adjacent to professional building due completion September. Explore the possibilities with A. D. Hethcock, 214-398-1531.

PSYCHIATRIC RESIDENCY IN APPROVED three-year program. Effective connections with universities, medical schools, private clinics and community centers. Outstanding faculty and programs. Stipends with Texas license are $15,000, $16,000 and $17,000 per year. In addition, now offering residency in child psychiatry. For full information, write to: Anthony P. Rousos, M.D., Director of Residency Training, Austin State Hospital, 4110 Guadalupe Street, Austin, Texas 78751.

CARDIOLOGIST - ONCOLOCIST/HEMATOLOCIST - CENERAL INTERNIST & PULMONARY medicine specialist needed to add to our 9-doctor IM group practice. We are a referral practice in new office, with new equipment adjacent to a private hospital. The hospital has a new Cath. Lab and CT scanner. Attractive financial incentive plan. Send CV to Robert L. Hatcher, M.D., Valley Diagnostic Clinic, 2121 Pease St., Harlingen, Texas 78550; 512-425-7200.

POSITIONS VACANT FOR TEXAS: Surgeon with thoracic surgery training wanted to join a busy solo practice summer of 1978. Opportunity to do general surgery while building up a thoracic practice. Board eligibility in general surgery required. Eligibility for thoracic surgery preferred. Please reply to Ad-735, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTITIONER AND PEDIATRICIAN NEEDED to join multi-specialty group in west Texas city of 175,000. New clinic and hospital facilities. Top salary with partnership opportunity. University Medical Surgical Clinic, 6602 Quaker Avenue, Lubbock, Texas 79414.

INTERNAL MEDICINE/CARDIOLOGY—64 bed hospital in East Texas area with new fully equipped cardio-pulmonary department. Please contact Paul Bennett, Administrator, Cladewater Municipal Hospital, 300 West Upshur, Cladewater, Texas 75647; 214-845-2281.

BOARD CERTIFIED FP NEEDS ASSOCIATE for active practice. Across street from 160 bed hospital. Own lab and x-ray. All specialties available, full privileges. College town, deep east Texas. Forests and lakes for recreation. Fast growing area with diversified economy. Terms negotiable. Ralph C. Bailey, M.D., 1209 N. Mound Street, Nacogdoches, Texas 75961; telephone 713-564-3731.

INTERNIST—Pine hills of East Texas. Thriving city of 65,000. Extraordinary cultural and recreational activities. Medical center of East Texas. Nine man group—three GP, three IM, three surgeons. Please contact Robert Felix, Administrator, Medical & Surgical Clinic, P.O. Box 6026, Tyler, Texas 75711; phone 214-593-1721.

SURGEON—Board certified or eligible wanted to join 12 physician multispeciatly group; in an area serving 45,000 people within Dallas-Fort Worth Metroplex. Excellent hospital and community facilities. Financial arrangements dependent on ability, training and boards. Call 817-295-2021 or send resume to P.O. Box 157, Cleburne, Texas 76031.

ORTHOPEDIST—Board certified wanted to join 12 physician multi-specialty group; in an area serving 45,000 people within Dallas-Fort Worth Metroplex. Excellent hospital and community facilities. Financial arrangements dependent on ability, training and boards. Call 817-295-2021 or send resume to P.O. Box 157, Cleburne, Texas 76031.

INTERNIST—Board certified or eligible wanted to join 12 physician multispecialty group; in an area serving 45,000 people within Dallas-Fort Worth Metroplex. Excellent hospital and community facilities. Financial arrangements dependent on ability, training and boards. Call 817-295-2021 or send resume to P.O. Box 157, Cleburne, Texas 76031.

ARE YOU TIRED OF THE FRUSTRATIONS of pediatric practice and are interested in practicing allergy under a Board-Certified Allergist? If so, write P.O. Box 1761, Austin, Texas 78767. Please enclose a curriculum vitae.

PRACTICE OPPORTUNITIES ACROSS THE STATE, in cities and towns, salary or fee for service. Attractive financial arrangements. Assistance with red tape. Send resume and preferences to: Texas Doctors Group, P.O. Box 177, 500 International Life Building, Austin, Texas 78767.

TEXAS, IRVING: EMERGENCY PHYSICIANS. 213 bed hospital nestled in a community just outside Dallas (population 117,000). Home of the Dallas Cowboys. Very active hospital staff with specialty and general backup. Positions available for full time career oriented MDs. Salary negotiable. Provision for standard fringes including malpractice insurance. Send CV to Professional Emergency Service Association, 913 N. Bishop, Dallas, Texas 75208. Call 214 943-4768.

TWO PRIMARY CARE PHYSICIANS NEEDED to serve a rural, medically underserved, growing resort and retirement area of 8,500+ people. Must have MD or DO, Texas license and strong interest in rural, family and gerontological health problems. Contact, Project Director, San Jacinto County Health Services, Inc., P.O. Box 644, Coldspring, Texas 77331. 713 653-4554. An equal opportunity employer.

MOTLEY COUNTY: NEED ONE OR MORE FAMILY PHYSICIANS. Trade area approximately 13,000; rural area, primarily farming and ranching. One physician needs relief and backup. 12-bed hospital; clinic furnished to physicians free, with guaranteed salary. If physician agrees to three year contract, clinic and equipment offered to physician at wholesale or below at end of contract. Motley Ceneral Hospital, Drawer A, Matador, Texas 79244.

TEXAS, SAN ANTONIO based emergency physician group expanding. Immediate openings for career oriented emergency physicians in several communities. Will consider part-time, flexible schedule. Call or write: Emergency Physicians Associates, 730 North Main, Suite 624, San Antonio, Texas 78205; 512-222-0746 or 224-9067.

FAMILY PRACTICE. One or two physicians to join me in an incorporated practice. Terms negotiable. Excellent facilities. Raymond Benski, M.D., D.A.B.F.P., F.A.A.F.P., Family Clinic, P.A., 1323 South 27th Street, Nederland, Texas 77627; call collect 713-722-0481.

MEDICAL DIRECTOR—Established non-profit, community-based family health service in South Texas needs well-qualified physician to direct medical services for urban/rural health center network. Excellent opportunity for physician with experience in delivery of primary health care and interest in community medicine. Preferably bilingual (English and Spanish). Organize and direct medical services including three established health centers. Offer includes malpractice, health, life, plus salary guarantee, one month paid vacation, educational leave, productivity bonus arrangement. Shared call schedule, good facilities, over 400 hospital beds in county, schools, churches, good housing, and university. Contact Administrator, HCHCC, P. O. Box 1410, Edinburg, Texas 78539.

FAMILY PRACTITIONER AND PEDIATRICIAN—to join medical association serving established non-profit, community-based family health service in South Texas. Bilingual (English and Spanish) preferred. Offer includes malpractice, health, life plus salary guarantee, paid one-month vacation, and educational leave. Productivity bonus arrangement. Shared call schedule. Part-time locum tenens and independent contractor opportunities also available. Contact Administrator, HCHCC, P. O. Box 1410, Edinburg, Texas 78539.

TEACHING AND CLINICAL FACULTY POSITIONS (full-time, salaried) available in family practice and internal medicine (general) with medical research and teaching institution (non-government). No research required. Instructor and assistant professor levels. Salary and attractive fringe benefit program, vacation, sick leave; please forward curriculum vitae to Ad-761, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST WANTED to assume instant busy practice in East Texas city of 65,000; referral center. Available June 1978. Please reply to Ad-763, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GULF COAST LOCATION, PORT LAVACA, TEXAS—Need family practitioners, specialties. Friendly, growing city. Modern accredited 75-bed hospital. Three OR's, two delivery, five-bed ICU. Major industries here, excellent medical benefits. Patient potential for double present eight physicians. Excellent family location. Outstanding fishing, hunting, water sports. Convenient to metropolitan areas. Contact: Garney B. Scott, Chairman-Champ Traylor Memorial Hospital Physician Search Committee, c/o Auminum Company of America, Point Comfort, Texas 77978.

UNUSUAL PRIVATE PRACTICE OPPORTUNITIES NOW AVAILABLE in general practice. Opportunities available in a 158-bed proprietary hospital, physician owned and operated. Medical success in your practice guaranteed by cash of $6,500 per month for a period of six months. Free rent and other benefits also included. Pasadena, Texas, is a progressive city of 150,000 located as a suburb of Houston, Texas, near the Johnson Space Center. Community enjoys high per capita earnings, open staff policies, and unlimited medical opportunities. Applications will be restricted to aggressive and American-trained physicians only. For additional information, write or call Richard Fly, Administrator, Pasadena Ceneral Hospital, 1004 Seymour, Pasadena, Texas 77506. Phone 713 473-1771.

OCCUPATIONAL, AEROSPACE, PREVENTIVE MEDICINE. Board certified or eligible physician in occupational, preventive or aviation medicine for primary care practice in large, 60-man clinic and satellites with opportunity to participate in executive health and occupational medicine. Teaching and research opportunities in adjacent Texas Medical Center. Salary negotiable. (No dual compensation involved for retired.) Write or call M. B. Johnston, M.D., Kelsey-Seybold Clinic, 6624 Fannin Street, Houston, Texas 77030. 713-797-1551.

Situations Wanted

ANESTHESIOLOCIST—35, married, board certified, two years active practice, presently instructor university hospital; New York, Maryland licenses; seeks relocation to join partnership or group, available two months notice. Please reply to Ad-752, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

SEEKINC LOCATION: 37 years old physician, four years US postgraduate training in general surgery, excellent experience in trauma and ER. Very good references, pending of Texas temporary license. Seeks suitable position in Southeastern Texas area (Calveston, Houston, etc.). Speaks fluently several languages. Dr. G. Durand, 143-40, 41st Avenue, Flushing, New York 11355; 212 463-9070.

ANESTHESIOLOGIST: Board eligible, university hospital trained, seeks group practice. Experience in open heart, neurosurgery, ICU. Available, July 1978. Please reply to Ad-753, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD CERTIFIED INTERNIST, 32, with gastroenterology subspecialty, seeking group, hospital or solo practice with first year income guarantee. Available July 1978. Write: Rajkumar Warrier, M.D., 68-A Manhattan Court, Brooklyn, New York 11235.

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Letters

Gilles de la Tourette Syndrome

Dear Ms Baker:

Gilles de la Tourette syndrome of multiple motor-verbal tics has always been a poorly understood disorder, difficult to diagnose, and more difficult to treat. The recent finding that haloperidol (Haldol) can effectively control the symptoms in the majority of patients has spawned a new interest in this rare disorder. Articles have been appearing in national magazines, and an organization (Tourette's Syndrome Association) has been formed to promote public awareness. In Texas, regional Tourette's Syndrome Associations have been formed in Houston and Ft Worth, and more are planned for other Texas cities. A number of patients are presenting themselves to physicians after reading publications made available by this association.

Unfortunately, much of the information in standard references is scanty, out of date, and inaccurate. A. K. Shapiro, MD, has pointed out some of the mistakes perpetuated in the literature, such as the notion that verbalization of obscenities (coprolalia) is essential for the diagnosis. Actually, only 50% to 60% of patients show this symptom, and usually not before adolescence. All this has led to a delay in diagnosis, averaging 11 years in one study.[1]

Tourette syndrome usually begins between the ages of 2 and 14 years, with involuntary, tic-like muscular movements. The tics are uncoordinated, rhythmical, purposeless, rapid (less than one minute in duration), "explosive," and usually involve more than one muscle group. The symptoms usually change slowly during two to four months with waxing and waning of symptoms. New tics slowly develop and replace or are added to older ones. Inarticulate noises or words develop in time, usually months or years after the initial motor tics. Coprolalia is typically the last appearing verbal symptom, but occasionally it may be the first. Symptoms such as an expiratory hiss, spitting, stuttering, throat clearing, coughs, stammering, and odd distortions of emphasis of words are frequently overlooked. The syndrome may be associated with verbal repetitions (echolalia) or behavioral imitations (echopraxia). Movements and noises are involuntary, but they can be partially controlled with concentration and intense effort. Tics are diminished with relaxation, drowsiness, sleep, and fever. They are exacerbated at times of emotional stress, fatigue, anger, or excitation.[1,2]

The Tourette's Syndrome Association (44-40 Bell Blvd, Bayside, NY 10036) is an excellent source of information. They will send reports of articles in the medical literature and a news letter listing additional references and research projects. A good review article is "Gilles de la Tourette's Disease, A Review," by Kenneth Woodrow, in the September 1974 issue of the *American Journal of Psychiatry*.[3]

Shapiro's current treatment has changed from rapidly increasing doses of Haldol, to a gradual increase in order to prevent side effects.[4] He recommends starting with 0.25 mg Haldol and 0.5 mg of Cogentin to counter side effects. Haldol is increased 0.25 mg every five days, slowly titrating the dosage upward until maximum relief of symptoms with minimal side effects is obtained (*Tourette's Syndrome Association News Letter*, July, 1976). I have tried this as well as using an even smaller starting dosage (0.1 mg in the liquid concentrated form) with good results and minimal side effects.

I am enclosing additional references which may be of interest to the readers.

Frank E. Crumley, MD, Dallas.

References

1. Shapiro AK, Shapiro E, Wayne HL: The symptomatology and diagnosis of Gilles de la Tourette's syndrome. J Am Acad Child Psychiatry 12:702-723, 1973.
2. Brunn RD, Shapiro AK: Differential diagnosis of Gilles de la Tourette's syndrome. J Nerv Ment Dis 155:328-334, 1972.
3. Woodrow KM: Gilles de la Tourette's disease—a review. Am J Psy 131(9):1000-1003, 1974.
4. Shapiro AK, Shapiro E, Wayne H: Treatment of Tourette's syndrome with haloperidol, review of 34 cases. Arch Gen Psy 28:92-97, 1973.

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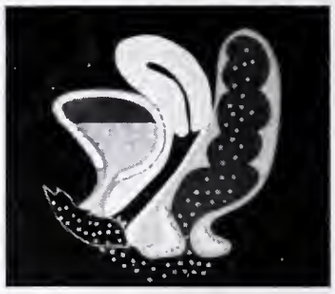

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Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

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Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

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Editorials

BUREAUCRATIC REGS CAUSE DEMISE OF MEDICARE IN NURSING HOMES

Now that a new Congress and a new President are reevaluating medical care delivery systems in this country, it behooves us to point out the poor results of one prime example of bureaucratic control of a medical delivery plan.

I refer to the Medicare Nursing Home program, not to Medicaid.

At the beginning of the Medicare program, some 486 nursing homes in Texas signed up and were accredited for the program. Today in Texas only some 38 homes still remain in this program; Oklahoma has only 4 and Arkansas, 1. Owners, administrators, and medical staffs of nursing homes have found it necessary to resign from the Medicare program. Government researchers should make a careful study of the reasons for this program's demise. In its initial concept, it had many good points for health care for the elderly associated with possible reduction in some of the health care costs.

The concept that elderly patients could be dismissed from hospitals earlier than usual and recuperate in long-term care institutions certainly was a desirable ideal. Many nursing homes met the qualifications for long-term care institutions but they could not cope with bureaucratic controls, retroactive denials of payment, disallowances of normal operating costs, and general trauma from federal authorities. As a result, they dropped out of the program, and that action led to almost total destruction of the Medicare nursing home program.

The Department of Health, Education and Welfare is now discussing regulations that will delay further the concept of dismissing the patient from the hospital. There is a working concept, in HEW, that physicians and patient's families do not really understand what level of care a patient needs. Therefore, the reasoning continues, in order to insure that a suitable patient will be discharged from a hospital to a facility with less skilled levels of care, a committee must decide what the patient needs and where he can go. This committee would consist of a hospital coordinator, a pharmacist, psychiatrist, disinterested general physician, and a social worker—all of whom would interview the patient and then analyze his needs.

Such a procedure would certainly consume an enormous amount of time and, furthermore, could result in gross medical injustice with an associated enormous cost increase to the taxpayer. Among such a committee, the bureaucratic process of reaching a consensus might take as long as 7 to 14 days. It could increase the cost as much as a six-month stay in a skilled nursing facility might entail.

Also, it is readily apparent that where the beds in acute care hospitals are not being fully utilized, there might be a tendency to keep these hospital patients longer than necessary simply to increase bed usage. Certain national health care proposals, along with proposals in Medicare and Medicaid divisions, are calling for hospital beds to be utilized as long-term care beds. This suggestion needs careful evaluation, as it would seem to be impossible for the cost of care (in the hospital) to be at all relevant to the

cost of similar care in a skilled nursing facility. The question might be raised as to how the cost of caring for a patient in one wing of a hospital can be so expensive when compared with the cost in another wing of the same hospital.

Daily, I see a still greater urgency for physicians to involve themselves in the legislative processes and to continue to fight the bureaucratic destruction of medical care delivery systems in this country.

Ruskin C. Norman, MD, San Antonio, TMA Committee on Aging and Nursing Homes.

WHAT CAN WE DO?

Every physician is aware that medicine is being criticized openly and repeatedly. Indeed, medicine is being blamed for many of society's ills, including inflation; environmental influences on health; and high death rates resulting from obesity, smoking, and other illnesses arising from voluntary but unhealthy life styles.

What can we do to respond?

First, we must help to make public expectations realistic. There have been many advances in medicine, but medicine cannot solve all problems. We must not promise too much; rather, we must do all that we can to help people understand the limitations of medicine. Third-party coverage, virtually guaranteeing payment for medical services, cannot guarantee the relief of all pains or the cure for all diseases. Furthermore, it must be emphasized to patients that hospitalizations, x-rays, laboratory procedures, or treatments that are not necessary lead to increased costs without any benefit to them. This is the primary effort we can make to keep costs down.

Second, we must assist in the development of a reasonable solution to the problems engendered by specialty and geographic maldistribution. Certainly the efforts of medical schools to increase the number of students entering the primary care areas are successful. However, it does take time, since three years of residency are required for family medicine, internal medicine, and pediatrics. Furthermore, there is evidence that physicians are going to underserved areas. We must continue to emphasize that every town does not require a physician. Access to health care, not a physician in every town, must be our goal! Again, public education is necessary. That is, each of us must inform our patients and the local media of the difference.

Finally, we must resist simple "solutions" to complex problems. Mandatory service of physicians in designated areas (as proposed by a Texas legislator) is not a long-range solution, but it has appeal to the uninformed. On the other hand, voluntary commitments, such as those developed by the State Rural Medical Education Board, have potential. The lowering of standards of medical care, lowering of medical school admissions criteria, and others, should not be tolerated. The profession has resisted cults and other moves to lower the quality of care of people. We must continue to resist these modern attempts (in other guises) to accomplish the same goals.

What can we do? We can convince our patients, our neighbors, and our legislators that quality medical care is the only acceptable alternative.

The shaping of public opinion is in our hands. We must act individually.

Edward N. Brandt, Jr, MD, PhD, Austin,
Vice-President for Health Affairs,
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Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension*, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Please see reverse side for summary of product information.

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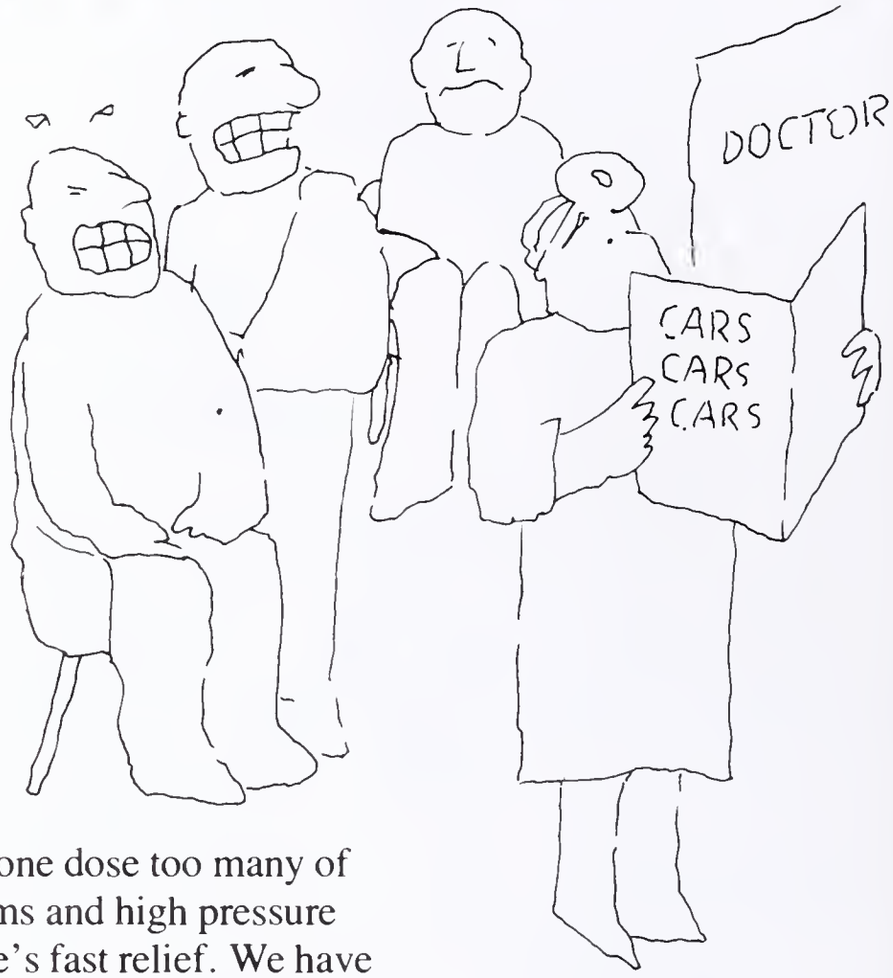
On The Cover

Sometimes it is hard to know which treatment will be the most effective for an aging patient, and sometimes it is just as hard for the patient and his family to select the physician who is best qualified, both by medical training and personal characteristics, to provide guidance about the different kinds of problems that affect the elderly. The article on health care consumer advice, beginning on page 43, deals with some of these issues.

Does buying a car try your patients?



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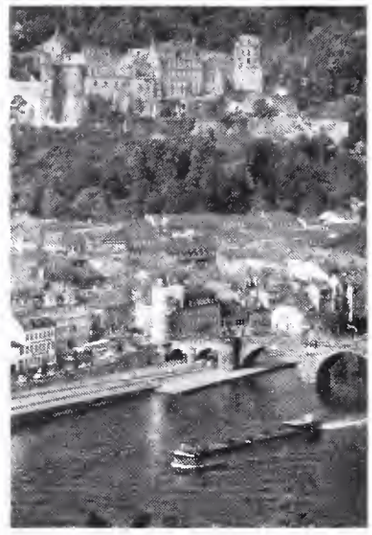

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duction have been in staffing improvement through personnel reduction and/or improved productivity and in nonlabor? cost improvement through inventory control and cash flow improvements.

The Texas panel also voted to encourage the Dept of Health, Education, and Welfare to review all existing and proposed regulations to determine their impact on the cost of hospital and medical services.

TMA May meeting will feature wide-ranging medical program

Twenty-two scientific sections, six TMA committees, and thirty-two specialty and related medical organizations will present programs at the 1978 TMA Annual Session May 11-14 in San Antonio.

Edward Teller, PhD, University professor Emeritus, University of California, will address a luncheon meeting on "The Hazards of the Radiation Scare." John Budd, MD, president of the American Medical Association, will also address a luncheon meeting during the session.

The TMA meeting will also feature ten AMA-TMA postgraduate courses, a dialogue program, a program regarding hypertension, a medical seminar on rape, cardiopulmonary resuscitation courses, and a symposium on sports medicine.

Other programs will be about cardiovascular diseases, emergency medical services, maternal and child health, and aging.

The May meeting will feature a conference on school health, and symposium on rheumatic disease, a program about the role of the physician advisor in utilization review, and a seminar for hospital-medical staff leadership.

Measles increase in Texas in 1977

Texas had 8.6 times as many measles cases reported in 1977 as in 1976, according to the Center for Disease Control.

Data in the Center for Disease Control's publication *Morbidity and Mortality Weekly Report* compared the weeks ending Oct 29, 1977, and Oct 30, 1976.

Nationally there has been a 1.5 increase in reported measles cases in 1977.

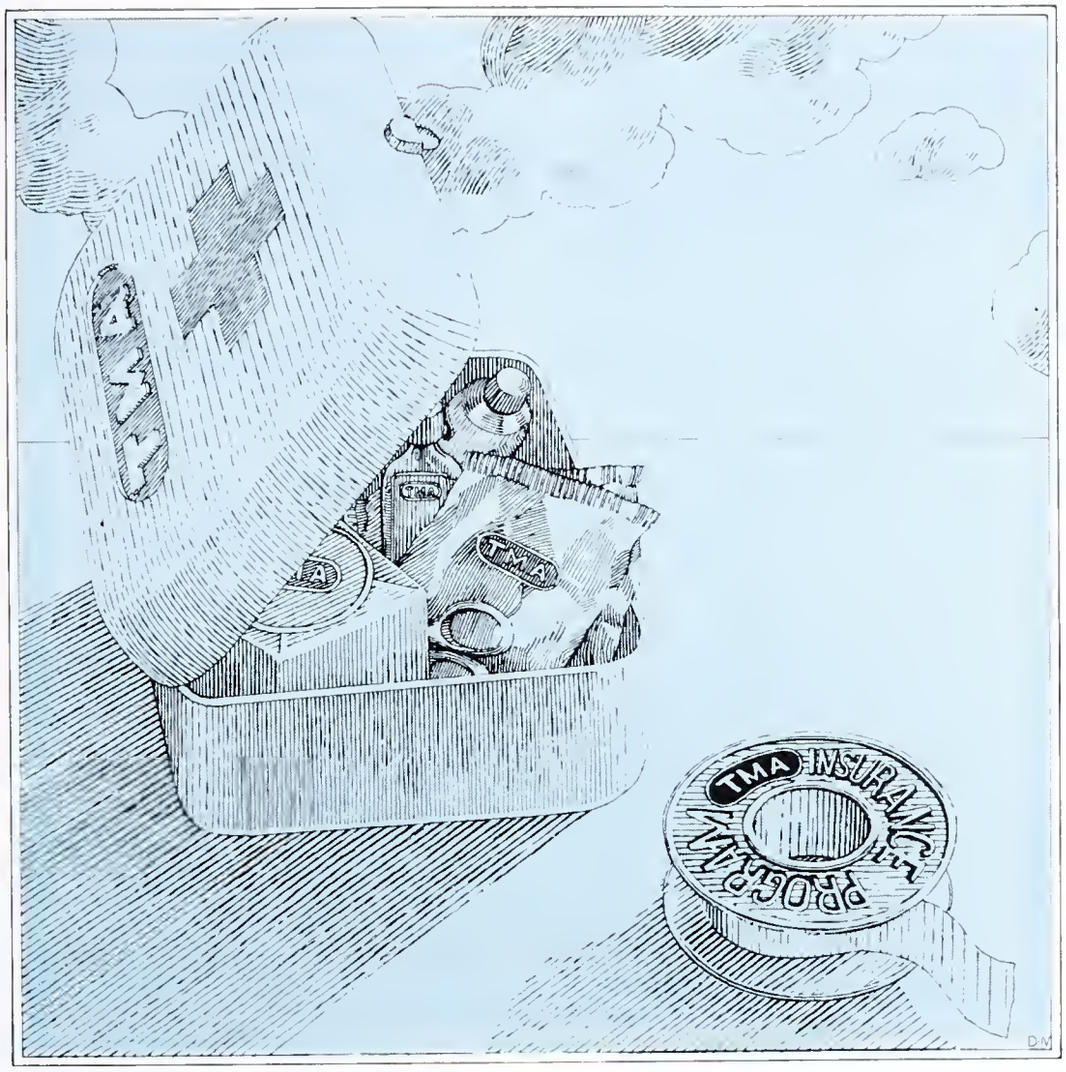
Such increases in measles morbidity would seem improbable in Texas, a state that has an actively-enforced school immunization law, infant immunization surveillance program, child-caring facility immunization requirements, and a very immunization-conscious medical profession, says the Texas Department of Health.

However, a partial explanation might be that many Texas children were immunized against measles prior to their first birthdays. It has been discovered that infants have a reduced capacity to develop immunity following measles immunization prior to 12-14 months of age. It has also been demonstrated that administration of gamma globulin with some types of measles vaccine may have prevented the development of long-lasting immunity.

A third problem has been identified this year to account for some of the measles cases in Texas, the health department says. Children attending child-caring facilities and schools were often admitted with histories of measles in lieu of vaccine. Careful review of case histories has demonstrated that not all of these children actually had had measles illness.

The Texas Department of Health is preparing a revision of the rules and regulations for child-caring facilities and schools so that a history of measles illness will be accepted in lieu of vaccine only if a physician provides a written statement.

The Texas Department of Health recommends that all children immunized with measles vaccine prior to their first birthdays receive another dose after they reach 15 months. The department also recommends that if there is any doubt as to past measles illness, measles vaccine should be administered.



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CDC begins project to monitor abortion morbidity

To learn the public health effect of restricting public funds for abortion, the national Center for Disease Control has designed a project to monitor any changes in abortion morbidity and mortality in approximately 20 hospitals throughout the United States.

The Texas Department of Health is assisting the CDC in establishing this abortion surveillance system, Abortion Monitoring in Sentinel Hospitals, in Texas.

During the third week of November, a system was established in El Paso, through the cooperation of ten hospitals and two family planning clinics. The CDC will extend surveillance to other Texas cities.

The US Supreme Court decision upholding the Hyde Amendment went into effect in August 1977, terminating federal funding for abortion. As a consequence, women who are eligible for Medicaid under Title XIX cannot receive Medicaid funding for the termination of a pregnancy.

According to the Hyde Amendment, Medicaid funds only pay for an abortion when the life of the mother is endangered. The appropriations bill that was recently passed by Congress, and signed into law Dec 9, 1977, will fund abortions under the following conditions: if the woman's life is endangered; if the woman would suffer severe and long-standing physical health damage were the pregnancy to continue; and in cases of rape, statutory rape or incest that have been promptly reported to law enforcement or public health authorities.

Under Texas' rules, prior authorization from the Texas Department of Human Resources through the Medicaid Insuring Agent, must first be obtained. The physicians must certify in writing that the woman's life is in danger, submit this document to the department, and obtain approval from that department before performing the abortion. If prior authorization is not obtained, the physicians will not be paid for services.

Another provision of the Hyde Amendment states "nor is it the intent of the Conference . . . to prohibit the use of drugs or devices to prevent implantation of the fertilized ovum." Therefore, federal funding for various contraceptive measures, employed prior to the diagnosis of pregnancy, is not restricted by this amendment. These contraceptive measures include intrauterine device insertions, administration of diethylstilbesterol, or menstrual aspiration.

As a result of the restriction of Medicaid funding to poor women seeking abortions, one statistical study predicted an increase in maternal mortality.

The author reasoned that in 1974, 33% of the 763,000 legal abortions performed in this country were Medicaid-funded, or approximately 250,000 abortions. If these Medicaid-eligible women had carried their pregnancy to term, an estimated 44 excess maternal deaths would have occurred. If these women had sought illegal abortions, an estimated 90 excess maternal deaths would have occurred. In a hypothetical situation where 30% carried pregnancy to term, and 70% sought illegal abortions, an estimated 63 excess maternal deaths would occur. The estimated mortality rate for legal abortions in developed countries is about four deaths per 100,000 procedures. The estimated mortality rate for nonlegal abortions in developed countries is about 40 deaths per 100,000 procedures.

It is estimated that approximately one million illegal abortions took place in the United States each year prior to the Supreme Court decision of Jan 22, 1973, which legalized abortions in the United States. In 1963, 222 deaths from illegal abortions had been reported nationwide. In 1975, only four deaths from illegal abortions were reported.

Texas Abortion Statistics

	Abortions Funded by Medicaid	Deliveries Funded by Medicaid
1975	4,340	13,165
1976	5,146	17,532
1977	3,506	10,465
Cost of procedure	$186	$850

Source: Texas Department of Human Resources

JCAH to publish 1978 edition of hospital accreditation manual

A comprehensive edition of the *Accreditation Manual for Hospitals* will be published by the Joint Commission on Accreditation of Hospitals (JCAH) in February 1978, and will become effective immediately.

This edition will incorporate the standards published in the 1976 edition, revisions and additions to standards published in three supplements to that edition, and revisions adopted by the JCAH Board of Commissioners at its December 1977, meeting. The JCAH Board of Commissioners has directed that the manual be published annually to include any new and revised requirements approved since the previous edition. The requirements would become effective for accreditation decision purposes on January 1 of that edition year.

This annual edition will be available on Aug 1 of the preceding year to provide hospitals opportunity to acquire the new manual, to familiarize themselves with the new requirements, and to initiate any actions necessary for achieving compliance. For example, the 1979 edition of the manual will be published Aug 1, 1978. New requirements contained will be effective Jan 1, 1979.

Cost of the 1978 manual will be $20.00 per copy. Only prepaid orders are accepted. Advance orders may be made to the Publications Manager, JCAH, 875 North Michigan Avenue, Chicago, Illinois 60611. No orders will be shipped before March 1, 1978.

The JCAH, formed in 1951, is a private, not-for-profit organization whose primary purpose is to promote high quality in the provision of health care and related human services. In addition to its program for hospitals, the JCAH also conducts voluntary accreditation programs throughout the United States for long term care facilities, psychiatric facilities, ambulatory health care organizations, and services for mentally retarded and other developmentally disabled persons.

Study says only 6% have no health coverage

Six percent of the American public, or 12.2 million people, have no health protection, according to a recent study by an independent research team.

The number of Americans in the gap between private insurance coverage and public assistance is much lower than has been widely believed, according to authors Stephen G. Sudovar Jr and Kathleen Sullivan, in a study sponsored by Roche Laboratories.

A recent Congressional Budget Office estimate put the unprotected figure at 18 million persons, while other estimates have ranged as high as 40 million.

For the purpose of the study, coverage was defined as protection against the expenses of hospitalization and in-hospital physician care.

The study also revealed that for the most part, people in the gap are those who are unemployed, under-employed, self-employed, or in such poor health to begin with that they are virtually uninsurable. Half of them—almost 7 million—earn less than $10,000 annually per family. In short, they are neither poor enough to qualify for Medicaid, old enough to apply for Medicare, nor financially able or healthy enough to buy private coverage on their own, the study says.

The study indicates that 150.5 million Americans are covered through private insurance plans; 37.5 million are enrolled in Medicare and Medicaid; and the remaining 10.3 million receive care through the Armed Forces, state and federal prison systems, Indian health programs, or other government institutional membership.

Physicians' fees up 0.6% in November

Physicians' fees increased 0.6% during the month of November, according to the Consumer Price Index of the US Dept of Labor.

The physicians' fees increase led those in both the "all items" index and the "all services" index of the CPI. It represented a rise in the rate of increase in physicians' fees after two consecutive months of a falling rate.

During the month, the total medical care index increased 0.4%, and the cost of a semi-private hospital room increased 0.3%, the smallest increase in this item during the year.

Since the end of economic controls in April 1974, physicians' fees have increased 45.3% compared with 28.7% for all items, and 34.9% for all services.

In the same period, hospital service charges increased 52.8%, and operating room charges 67.9%.

Research funding totals $189.9 million for Texas public colleges and universities

Funding for research at Texas public colleges and universities, including public medical, dental, and allied health units, totaled $189.9 million in 1976-77.

The total was a 12.3% increase over the previous year, according to a report compiled by the Coordinating Board, Texas College and University System.

Medical research and biomedical research accounted for more than 95% of the $64.4 million received by public medical, dental and allied health programs. The University of Texas Cancer Center received the largest share of that amount, $26.5 million, for its research activities.

More than half of the research monies at senior institutions was expended in the area of physical sciences, including engineering and mathematics.

Of the total available funding, 58.4% was from the federal government and 24.3% from the state. Private and other sources supplied the remaining research monies. Federal funds for research at state-supported institutions of higher education increased 17.3% to $111 million last year. The $46.1 million from state appropriations represented a 16.4% increase.

TMA president compliments NBC on special medical program

TMA president, John M. Smith, Jr, MD, has written a letter to the National Broadcasting Company complimenting NBC-TV News on the special program, "Medicine in America: Life, Death and Dollars."

In his letter to Robert Mulholland and the Texas NBC-TV Affiliates, Dr Smith said, "The program was a well documented, fair, and balanced presentation on health care.

"There have been times when those of us in medicine have been the victims of unfair and unreasonable attacks by the media. It was refreshing to witness a truly professional production on medicine that concentrated on presenting facts and a balance of differing opinions in an interesting and informative manner," Dr Smith said.

He concluded saying that the important message to the public on the effect of individual living habits on health cannot be repeated often enough.

Texas Medicine announces physician award winners

An Abilene physician and a fellow in the department of internal medicine at the University of Texas Medical School in Houston have won the Texas Medical Association scientific writing awards. Both will receive $250 and a certificate for their scientific papers.

Ralph M. McCleskey, Jr, MD, Abilene, won the *Texas Medicine* award for his papers titled, "The Response of Left Ventricular Ejection Time to Inhalation of Amyl Nitrite on Patients with Mitral Valve Prolapse" and "The Response of Left Ventricular Ejection Time to Amyl Nitrite Inhalation in Normal Male and Female Subjects."

Jeremy J. Hammond, MD, Houston, won the award for his paper titled, "Sodium Nitroprusside Today: A Review of Its Clinical Applications and a Discussion of Problems Associated with Its Use."

The Texas Medical Association established the writing awards 13 years ago to commend the best scientific articles by medical students, residents, and young practicing physicians. Entries are judged for scientific excellence and writing competence. The original, unpublished articles appear in this issue of *Texas Medicine*.

Dr McCleskey is a 1969 graduate of the University of Texas Southwestern Medical School at Dallas. He did his internship in straight medi-

Brief Summary of Prescribing Information

Actions: Pyrvinium pamoate appears to exert its anthelmintic effect by preventing the parasite from using exogenous carbohydrates. The parasite's endogenous reserves are depleted, and it dies. Povan is not appreciably absorbed from the gastrointestinal tract.

Indication: Povan is indicated for the treatment of enterobiasis.

Warnings: No animal or human reproduction studies have been performed. Therefore, the use of this drug during pregnancy requires that the potential benefits be weighed against its possible hazards to the mother and fetus.

Precautions: To forestall undue concern and help avoid accidental staining, patients and parents should be advised of the staining properties of Povan. Care should be exercised not to spill the suspension because it will stain most materials. Tablets should be swallowed whole to avoid staining of teeth. Parents and patients should be informed that pyrvinium pamoate will color the stool a bright red. This is not harmful to the patient. If emesis occurs, the vomitus will probably be colored red and will stain most materials.

Adverse Reactions: Nausea, vomiting, cramping, diarrhea, and hypersensitivity reactions (photosensitization and other allergic reactions) have been reported. The gastrointestinal reactions occur more often in older children and adults who have received large doses. Emesis is more frequently seen with Povan Suspension than with Povan Filmseals.

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cine at the Veterans Administration Hospital in Dallas and took his residency in internal medicine at Parkland Memorial Hospital in Dallas. He was then honored with a cardiology fellowship at Baylor Hospital in Dallas. Dr McCleskey served as a Captain in the US Air Force Hospital in Osna, Korea, and the McDill Regional Hospital in Tampa from 1970-1972.

Dr McCleskey is certified by the American Board of Internal Medicine. He is a member of the Taylor-Jones County Medical Society, Texas Medical Association, American Medical Association, and the American Society of Echocardiography.

Dr Hammond is a fellow in the hypertension division of the department of internal medicine at the University of Texas Medical School in Houston.

He received his medical education at the University of Melbourne, Victoria, Australia; St. Vincent's Hospital Clinical School; and Newman College, University of Melbourne, Victoria, Australia.

He is a diplomate of the American Board of Internal Medicine and a member of the Royal Australasian College of Physicians. Dr Hammond is a member of the Harris County Medical Society, Texas Medical Association, American Heart Association, American College of Physicians, and Australian Medical Association, and the Medical Society of Victoria, Australia.

New copyright law adds new requirement for authors

In view of The Copyright Revision Act of 1976, effective Jan 1, 1978, all transmittal letters to the editor must contain the following language before manuscripts can be reviewed for possible publication in *Texas Medicine*:

"In consideration of the Texas Medical Association taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the Texas Medical Association in the event that such work is published by the TMA."

Transmittal letters not containing the foregoing language signed by all authors of the manuscript will necessitate return of the manuscript.

For more information contact Marilyn Baker, Executive Editor, *Texas Medicine*.

TMA and AMA present speakers training seminar

The Texas Medical Association and the American Medical Association will present a Speakers and Leadership Training Seminar in Austin Feb 18-19.

The seminar will emphasize basic techniques of oral communications and will cover organization or structuring of materials, delivery, handling of questions and answers, and principles of good chairmanship and leadership styles.

The seminar is conducted by a speech professor covering the most modern educational techniques of public speaking and an AMA speech training executive who experiences the problems of public speakers in representing medicine.

Enrollment is limited for the full one and one-half days of intense training. The registration fee is $125 for AMA members and medical society staff, and $175 for non-AMA members.

For more information contact the TMA Communication Department.

Total national health expenditures greater for more affluent

Total national health expenditures, including government contributions, were 20% greater per capita for the more affluent than for the poor, and almost 60% greater for whites than for racial minorities, a government report says.

Per capita health care expenditures averaged $258 for a white individual, $162 for a minority, $265 for a person above the poverty line, and $213 for a poor person according to a HEW study.

The report also shows higher mortality rates in large city proverty area among minorities than among whites, and higher levels of disability among the poor.

Racial minorities, which comprise more than 40% of the nation's poor, the report said, suffer five times the tuberculosis mortality rate than white Americans do, three-and-a-half times the maternal, and a 42% greater overall mortality rate.

The data also show the impact of Medicare and Medicaid. The number of physician visits increased more for the poor and minorities than for others between 1964 and 1973. By 1973 the poor had more doctor visits than the nonpoor.

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Poor whites averaged 5.7 visits per person per year (4.7 in 1964), while poor minorities averaged 5 (3.1 in 1964). Nonpoor whites averaged 5 visits in 1973 (4.7 in 1964), and nonpoor minorities 4.3 (3.6 in 1964).

Medical school enrollment shows another increase

Total enrollment in the 116 US medical schools in 1976-77 was 58,266, an increase of 2,022 over the previous year, says the American Medical Association's 77th annual report on medical education published in the Dec 26 issue of the *Journal of the American Medical Association*.

First-year enrollment increased from 15,351 in 1975-76 to 15,667 in 1976-77, the AMA reports. The number of graduates increased from 13,561 to 13,607.

The total number of women enrolled in 1976-77 was 13,059, an increase of 1,532 over the previous year.

There were 41,394 full-time faculty members in the schools in 1976-77, for a ratio of 1 teacher for each 1.4 students. In addition, more than 80,000 physicians and others taught part time.

The total new enrollment of 15,667 students was selected from a total of 42,155 applicants. For the second time in as many years, the number of applicants declined slightly, from the peak of 42,624 in 1974-75. Each applicant applied to an average of almost nine different schools at the same time, hoping for acceptance by at least one.

By 1981-82, the 116 medical schools projected a first-year class of more than 16,000, with more than 16,000 graduates each year. Some additional medical schools will be in operation by that time.

Ethnic minorities enrolled in medical schools in 1976-77 totalled 4,841, a percentage of 8.2%.

A total of 494 US students in foreign medical schools managed to transfer to American schools with advanced standing at various levels.

Family medicine is now offered as a distinct discipline in 102 of the 116 medical schools.

In the field of graduate medical education, there was a decrease in the number of foreign graduates serving in house staff positions in US hospitals. Total at the start of 1977 was 15,097. There were 42,903 graduates of US medical schools serving as interns or residents.

In the area of continuing education for physicians, 59,067 doctors had earned the AMA's Physician's Recognition Award by Jan 1, 1977, certifying that they had attended courses or conducted other studies to keep abreast of new developments in medicine. Some states are beginning to require continuing education for renewal of licenses. Some state medical societies and many medical specialty organizations are requiring formal continuing education for members.

Leukemia society reports increased public support

Increased public support has raised the income of the Leukemia Society of America, Inc. to $9,804,070 in 1977.

The gains enabled the national voluntary health agency to continue the expansion of its triple programs of research, patient-aid and education, according to a just-issued annual report which covers the fiscal year which closed in June.

In the publication, Thomas R. McDonald, president, said the biggest jump in expenditures was for patient services which increased to $1,926,313 from $1,740,189 for the same period last year. The funds provided financial assistance in meeting the high costs of treatment for 4,142 children and adults with leukemia and allied disorders compared with 3,638 in 1976. Although the patient-aid program is administered in the various areas throughout the country where the society's chapters are located, "it is the organization's policy to help any leukemic patient in the continental United States, thus the patient rolls will continue to grow," he said.

Increases were recorded for a similar timespan in other program categories, also: public health education went from $1,469,886 to $1,538,934; professional education from $353,345 to $379,137 and community service from $1,065,310 to $1,098,213. Research support was steady, with the 1977 figure at $1,576,942 slightly ahead of the $1,572,588 for the year before.

National headquarters of the Leukemia Society of America, Inc. are at 211 East 43 St, New York, NY 10017.

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Final classification of the less-than-effective indications requires further investigation.

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Health center in Dallas begins burn hotline

A hotline offering free consultations to medical personnel who work with burn patients was opened Jan 11 at the University of Texas Health Science Center at Dallas.

The emergency hotline, part of an HEW-funded Regional Burn Demonstration Program, will be staffed around the clock by trauma physicians specializing in burn care. Located in the center's Cary Building, the phone provides access for consultations on acute or long-term medical care during office hours. In addition, consultations with other health-care specialists, such as physical and occupational therapists, burn nurses, psychologists and social workers will be available.

Also opened was a hotline for regional health personnel to call in on a 24-hour-a-day basis to report the number, extent and severity of new burn cases. The program needs this information in order to plan programs for professionals in burn care, according to Charles Baxter, MD, professor of surgery, UTHSCD, and project director. These educational aspects of the project include beginning the massive teaching program that will bring physicians and other burn workers into Parkland Memorial Hospital for specialty training sessions and will send health teams throughout the state leading seminars and training sessions. Audiovisual programs for use with groups will also be developed.

Partners with the UT center in developing and carrying out the program are the four Texas Emergency Medical Services in the areas the program covers—Trinity Valley (Fort Worth), Permian Basin (Odessa), West Central Texas (Abilene), and Panhandle (Amarillo). The program works with local EMS services in Dallas. This three-year contract is one of six for Regional Burn Demonstration Programs across the country.

The Parkland Burn Unit (with burn specialists from the UT Health Science Center) is already designated a burn center by the American Burn Association (ABA) guidelines, according to Baxter. The unit has 20 adult and 10 pediatric beds, Dr Baxter said.

Co-medical directors of the program are Dr Baxter and Phala Helm, MD, associate professor and chairman of the Department of Physical Medicine and Rehabilitation.

The hotline used for medical care is a call-collect number. The one for reporting burn injuries is a WATS line. For information on how to call these hotlines, health professionals in the region can call the program office at 214/688-3771.

Texas Rehabilitation Commission begins statewide service for handicapped citizens

The Texas Rehabilitation Commission (TRC) has expanded its statewide help to handicapped citizens with a five-year contract from the Department of Health, Education and Welfare to unlock the files on research of NASA and other technical programs.

"Findings from the space program, engineering centers and applied research will be matched to problems which handicapped workers have with job performance, training or daily activities," TRC Commissioner Jess M. Irwin, Jr said.

The new project is called IMPART, an acronym for Innovative Matching of Problems to Available Rehabilitation Technology. It was funded to provide answers to medical, training and vocational rehabilitation problems.

Dr Fred Bohls is the IMPART coordinator, and Charles J. Laenger is project supervisor at Southwest Research Institute.

Members of the rehabilitation community, handicapped individuals, employers, medical staff, and others who are concerned with rehabilitating handicapped people are encouraged to present problems to IMPART.

Commissioner Irwin said that IMPART will provide the service of matching problems to available solutions at no cost to handicapped persons, physicians, hospitals or counselors.

Irwin said that problems should be directed to IMPART, Texas Rehabilitation Commission, 118 East Riverside Drive, Austin, Tex 78704. The telephone number is (512) 447-0100.

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UT System will add cyclotron in Houston

The addition of a cyclotron to The University of Texas System Cancer Center's M.D. Anderson Hospital and Tumor Institute at Houston has been approved by the UT System Board of Regents.

President R. Lee Clark, MD, of the University Cancer Center, said the cyclotron will be "the only medically dedicated neutron generator" in the U.S. and foresees making the facility available for a joint neutron therapy and "short life" radioisotope research, treatment and education program with UT Medical Branch in Galveston.

The preliminary estimated total project cost is $1,471,000 which will be funded by a grant from the National Cancer Institute and matching funds.

For five years, M.D. Anderson Hospital has been conducting a National Cancer Institute grant-supported program in neutron therapy utilizing the cyclotron facility at Texas A&M University.

But, Dr Clark said, that arrangement has encountered a number of difficulties ranging from transportation of patients from Houston to College Station to non-availability of the cyclotron equipment when needed.

House of Representatives passes resolution challenging health guidelines

Three days before the end of the comment period on the National Health Planning Guidelines, Dec 6, the House of Representatives passed, 357-0, House Concurrent Resolution 432, a Resolution which challenges the strict applicability of the National Health Planning Guidelines to rural hospitals.

With this action, the House of Representatives joined the more than 30,000 responses made to the guidelines.

The Resolution notes that the guidelines may "impose unrealistic performance requirements upon small, rural hospitals," points out the special needs of rural areas, and expresses the intent of Congress that national guidelines must allow the local health system agency to recognize those special needs and characteristics.

During the discussion of the resolution on the floor of the House, universal agreement was expressed as to the special needs of rural areas and as to the view that mandatory national guidelines were unjustified.

A letter to HEW expressing similar concerns was circulated in the Senate and received more than 40 senatorial signatures.

The passage of the House resolution is added to the strong protest to the proposed National Health Planning Guidelines issued by HEW Sept 23.

During the comment period, HEW was avalanched by responses in opposition to the proposed federally mandated standards on certain health services for each HSA. While local option would have remained as to ascertaining the manner in which the need for certain services would be met, HEW would have determined the need itself by establishing the required standards.

The AMA and the TMA joined thousands of other concerned parties in protesting the HEW grab for such authority and expressed its strong opposition to the guidelines.

AMA publishes first update to Current Procedural Terminology

Thirty-eight revisions are included in the first update to the fourth edition of Current Procedural Terminology, the American Medical Association's comprehensive system for naming, coding and reporting medical procedures and services.

The most extensive revision of the Fall 1977 update to CPT-4 deals with mastectomy. CPT-4 now includes both delayed and immediate prosthetic implants after radical or modified radical breast surgery.

In foot surgery, radical resection for tumor is more clearly defined. In addition, sesamoidectomies are now coded.

In dermatology, chemical cauterization of a wound and photochemotherapy with ultraviolet are now listed.

Newly coded procedures in other fields include cryosurgery of turbinates, bone marrow

transplants, and nonpressurized airway inhalation treatment.

In addition, several procedures were deleted including the introduction of intraosseous needle and one of the entries for two-stage transurethral resection of prostate.

The first update was sent in December to individuals who have completed and returned the prepaid card included in the CPT-4 book. This and future updates to CPT-4 are provided at no additional cost to CPT-4 purchasers.

A mechanism now exists for recommendations from all users to be submitted to the AMA and considered for inclusion by a physician editorial review panel.

CPT was developed by and for physicians in response to the need for a uniform terminology and coding system. It is widely used by physicians, hospitals, clinics and others in the health care field. In addition to listing terms and identifying codes, CPT is a basic medical reference tool. It provides a comprehensive system to accurately designate medical, surgical and diagnostic procedures and services in terms that provide a nationwide uniform language among physicians, patients and third parties, such as insurance companies and Medicare-Medicaid administrators.

CPT is available through the Order Department, American Medical Association, 535 N Dearborn Street, Chicago, IL 60610. Single copies are $12.

Texas Medical Association coordinates Physician's Placement Service

The Texas Medical Association coordinates a Physician's Placement Service for communities seeking physicians, physicians seeking associates, and physicians seeking locations.

Two publications, "Physicians Seeking Locations in Texas" and "Opportunities for Practice in Texas," are prepared and distributed bimonthly.

Physicians seeking locations receive the list of opportunities while communities and physicians receive the list of physicians available for practice.

The service is provided without charge. For information write the Department of Medical Service, Texas Medical Association, 1905 N Lamar Blvd, Austin, 78705.

Coming next month

Articles scheduled for publication in the March issue deal with hypnotherapy in the treatment of sexual dysfunction, spectrum of etiologic factors of hypercalcemia in breast cancer, pseudo-obstruction of the colon as a postpartum complication, intra-arterial drug abuse, serum bile acid levels in hepatobiliary disease, and community recruitment of family physicians from family practice residencies.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media*	1977 thru 12/31	3 Years Ended 12/31/76	5 Years Ended 12/31/76	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	− 2.3%	− 9.3%	− 8.3%	1.7%
Loomis-Sayles Mutual Fund	− 7.8%	− 1.6%	− 4.4%	4.0%
Mercantile Bank Equity Fund	− 6.9%	+ 5.9%	−17.8%	4.3%
Mercantile Bank Fixed Income Fund	− 2.8%	+ 0.2%	− 5.5%	7.3%
T Rowe Price Growth Stock Fund	− 9.0%	− 2.6%	−16.6%	2.2%
T Rowe Price New Income Fund	− 2.2%	+ 2.7%	N/A	7.7%
Stein Roe & Farnham Balanced Fund	− 9.0%	− 0.5%	− 2.7%	3.6%
Standard & Poor 500 Stock Average	−11.5%	+10.4%	+ 5.3%	
Dow Jones Industrial Average	−17.3%	+18.1%	+12.9%	

*Includes reinvested capital gains distributions.

CAPITAL COMMENTS

Editor's note: "Capital Comments" is prepared by Brown, Maroney, Rose, Baker & Barber, Attorneys at Law, TMA General Counsel, to highlight current items of interest relating to health matters in the US Congress, federal agencies, state legislature, and Texas administrative agencies.

AUSTIN: MENTAL HEALTH CHANGES AND APPOINTMENTS. Kenneth D. Gaver, MD, commissioner, Texas Department of Mental Health and Mental Retardation, has resigned effective Feb 28. John J. Kavanaugh, MD, has been appointed deputy commissioner for mental health. Dr Kavanaugh has been serving as psychiatrist and director of residential services at the San Antonio State Hospital. His appointment fills the vacancy created by the resignation of Harold C. Domres, MD, last January to enter private practice. Named to the Texas State Mental Health Advisory Council were Charlotte Douglas, Plano, and Dr Arturo Vople, Laredo, representing mental services consumers; David F. Briones, MD, El Paso, assistant professor of psychiatry at the Texas Tech University School of Medicine, and Leonard E. Lawrence, MD, a member of the medical staff of San Antonio Children's Center, representing providers of mental health services; and Frank A. Borreca, Houston, executive director of the Harris County Center for Retarded, Inc., representing non-governmental organizations. Also named to the council were Dr Stan Pinder, Austin, director of community services for the Texas Youth Council, and Vernon R. Arrell, Austin, deputy commissioner of the Texas Rehabilitation Commission.

WASHINGTON: MALPRACTICE ANTI-TRUST ACTION. The US Supreme Court has agreed to decide if anti-trust laws can apply to refusal of insurance companies to sell malpractice coverage to physicians. The issue arose after Rhode Island MDs and their patients sought to bring action against insurance carriers on the grounds companies were boycotting them. Lower court held the plaintiffs could proceed with suit against St. Paul Fire and Marine Insurance Company; Aetna Casualty and Surety; Hartford Fire Insurance and its Hartford Casualty Company; Travelers Insurance. Companies have argued that they have federal law protections from antitrust action because federal law exempts insurers to the extent that they are state regulated except in the case of boycott, coercion or intimidation. Companies claim boycott provision applies to boycott against other insurers, not to policyholders.

AUSTIN: COMMISSION ON PHYSICAL FITNESS. Gov Dolph Briscoe has reappointed Kenneth Cooper, MD, for a six-year term to expire June 13, 1983, to the Governor's Commission on Physical Fitness.

WASHINGTON: FOREIGN MEDICAL GRADUATES. About 75% of the foreign medical graduates who took the new visa qualifying exam (VQE) failed the test, according to the National Board of Medical Examiners. The 3,448 examinees who failed will not receive visas to enter the US as exchange visitors or immigrants. Under the new health manpower act, foreign medical graduates must pass the VQE and an English language proficiency test before receiving either an exchange visitor or immigrant visa. The test is given once a year. Results show that foreign physicians tended to perform better on the clinical test than on the basic science test.

WASHINGTON: HEALTH PROFESSIONALS CERTIFICATION. A national, voluntary commission to set standards for certification of most health care professionals has been formed by 65 health related agencies. The National Commission of Health Certifying Agencies will grant recognition to certifying bodies that apply for and meet the established standards. Supporters of the Commission include the American Medical Association, the Federation of State Medical Boards, and most allied health professional groups. The American Nurses Association and the National League for Nursing have not yet decided to back the Commission. HEW officially supports the commission, but is leaving to the states and professional organizations decisions on how to credential each profession.

AUSTIN: SPECIAL ELECTIONS. Texas State Sen Don Adams, Jasper, has resigned to become counsel to the Texas governor. Texas State Rep Roy Blake, Nacogdoches, has resigned his seat to run for Sen Adams' spot in a special election Feb 18. A special election will also be held Feb 18 for a replacement of Blake.

WASHINGTON: US HEALTH INSURANCE PROGRAM. The United States already has a national health insurance program, one that attempts to care for the poor and elderly. The government should spend its time curing the problem within that system rather than creating a new one, according to John P. Virts, PhD, economist for Eli Lilly and Co. Virts said an increase in subsidized health care coverage is in fundamental conflict with aims to control costs, often given as a prime reason for adopting a national system. He predicted that federally mandated cost controls on health care systems will require rationing of health care, leaving the nation "literally dealing with a who shall live-who shall die question." He said, no form of control is effective if it is directed at the wrong problem. NHI proposals, he said, have been directed at health care cost increases; but more than half the increased health care spending from 1965 to 1976 was due to population growth. Another 7% from inflation, at least $7 billion of the $100 billion resulted from new administrative burdens, and the final 38% was because of expanded per capita utilization of health care goods and services.

WASHINGTON: MINIMUM WAGE. New minimum wage of $2.65 per hour became effective Jan 1, 1978, under law, signed by the President. Minimum will increase to $2.90 on Jan 1, 1979; $3.10 on Jan 1, 1980; $3.35 on Jan 1, 1985. Some 4.6 million workers, many in health care institutions, are affected by new minimums. Forty percent of the nursing home employees are estimated to earn less than the new minimum and the same is true of a significant number of non-professional hospital employees.

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The Predictable Progression

The pattern for alcohol addiction is substantially the same for almost every excessive drinker. The sequence of symptoms to follow is seen in about 80% of those who become victim to this powerful addiction and is the basis for the diagnosis of excessive drinking:

1. The excessive drinker begins drinking "socially" like millions of others. He soon begins drinking more than those around him in the same length of time.
2. He drinks faster than those around him. As a natural consequence, he becomes "drunk" more often than others.
3. Now he "has a few" before the party, or orders doubles. He has developed the addicts' classic tolerance for the drug. Drinking more and more, he experiences temporary amnesia.
4. He begins to find himself drunk nearly every time he drinks. The social consequences of drinking are now causing noticeable problems in his work and relationships.
5. He then loses the ability to control his drinking. He drinks until he can drink no more, and sometimes goes on weekend binges.
6. Eventually early morning drinking becomes necessary. He now begins to hide his dependence — and his bottles.
7. At this time most victims are beginning to enter the stage of severe physical deterioration. During periods of alcohol withdrawal, tremors and "butterflies" begin to appear.
8. In many cases delirium tremors begin. Hallucinations are very subjective and the excessive drinker now has difficulty obtaining rest. He is assailed by waves of unwarranted fear and emotional trauma.
9. With this deterioration comes brain damage sufficient enough that less and less alcohol is needed to induce intoxication. At this stage, his tolerance plummets greatly.
10. Liver damage is now severe, due to the toxic effects of the alcohol, inadequate diet and, some research indicates, the inability of the alcohol-ridden body to absorb vitamins. The cardiovascular system deteriorates.
11. Excessive drinking can now be fatal with an increased risk of accident, stroke or heart attack. Chance of death from other mortal diseases becomes much higher than normal.
12. Without immediate professional treatment the prognosis is guarded.

SCHICK HOSPITAL

Treatment and Research in Alcoholism

4101 Frawley Drive Fort Worth, Texas 76118 (817) 284-9217

When pain complicates acute cystitis*

Azo Gantanol®

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl

for the pain for the pathogens

□ **Early relief of painful symptoms** such as burning and pain associated with urgency and frequency.

□ **Effective control of susceptible pathogens** such as *E. coli, Klebsiella-Aerobacter, Staph. aureus, Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

□ **Appropriate antibacterial therapy:** up to three days therapy with Azo Gantanol, then 11 days with Gantanol® (sulfamethoxazole), 0.5 Gm tablets.

*Nonobstructed; due to susceptible organisms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis* and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.

***Note:* Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides.** Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

Note: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.

ROCHE

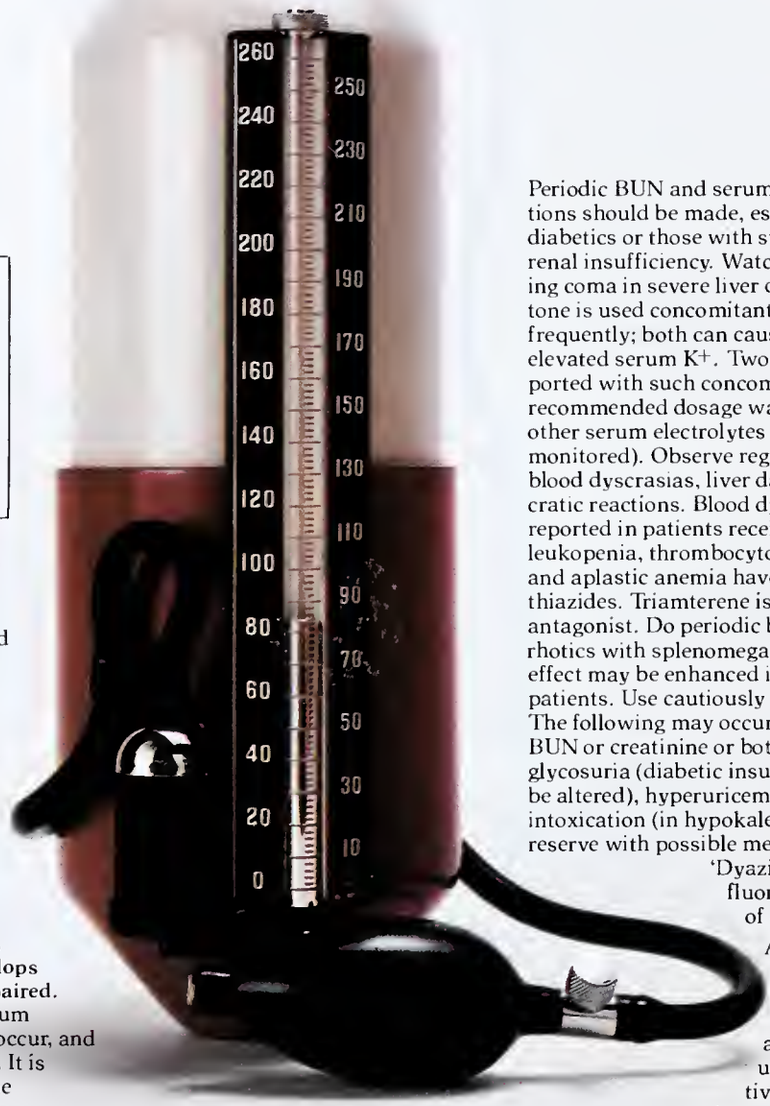
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

DYAZIDE®

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

MAKES SENSE



Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* **Warning**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

FOR LONG-TERM CONTROL OF HYPERTENSION.* SERUM K^+ AND BUN SHOULD BE CHECKED PERIODICALLY. (SEE WARNINGS SECTION.)

SK&F CO., Carolina, P.R. 00630

SK&F CO.
a SmithKline company

THREE-IN-ONE THERAPY AGAINST TOPICAL INFECTION

Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

This potent broad-spectrum antibacterial provides overlapping action to help combat infection caused by common susceptible pathogens (including staph and strep). The petrolatum base is gently occlusive, protective and enhances spreading.

Neomycin

Staphylococcus
Haemophilus
Klebsiella
Aerobacter
Escherichia
Proteus
Corynebacterium
Streptococcus
Pneumococcus

Bacitracin

Staphylococcus
Corynebacterium
Streptococcus
Pneumococcus

Polymyxin B

Pseudomonas
Haemophilus
Klebsiella
Aerobacter
Escherichia

In vitro overlapping antibacterial action of Neosporin® Ointment (polymyxin B-bacitracin-neomycin).

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

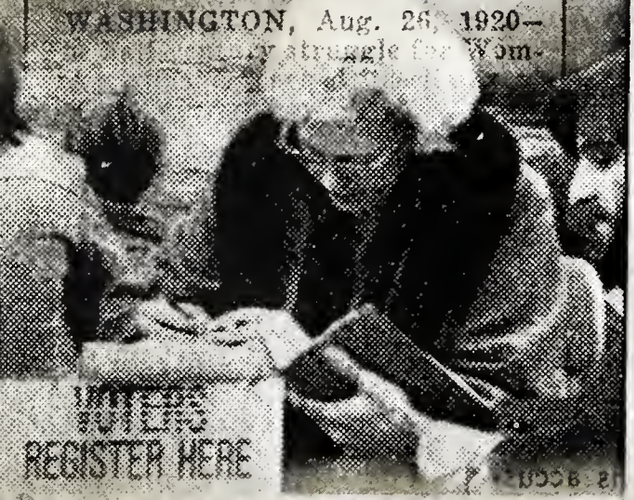
COLBY PROCLAIMS WOMAN SUFFRAGE

Signs Certificate of Ratification at His Home Without Women Witnesses.

MILITANTS VEXED AT PRIVACY.

Wanted Movies of Ceremony, But Both Factions Are

WASHINGTON, Aug. 26, 1920—
...y struggle for Wom-



Social Security Bill Is Signed; Gives Pensions to Aged, Jobl

Roosevelt Approves Message Intended to Benefit 30,00 Persons When States Adopt Cooperating Laws—He C the Measure 'Cornerstone' of His Economic Progra

WASHINGTON, Aug. 14,
The Social Security Bill, pr
a broad program of unempl
insurance and old age pe
and counted upon to benef
20,000,000 persons, became
day when it was signed by
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those chiefly responsible f
ting it through Congress.

Mr. Roosevelt called the m
"the cornerstone in a st
which is being ...
means comple...

SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution is Sent to House, Where Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today, 94 to 0, and sent to

TRUMAN CLOSES ITED NATIONS CONFEREN WITH PLEA TO TRANSLATE CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great Instrument of Peace,' Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing Ovation as Executive Pictures Peace Gain

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

"Oh, what a great day this can be in history!"

Just before the plenary session the President accompanied the

OUL SIGN the Draf Ends No

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the Secretary of the Army that

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA

THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N. W., WASHINGTON, D. C. 20005

TEXAS MEDICAL ASSOCIATION

Texas Medical Association and the American Medical Association will present a Speakers and Leadership Training Seminar in Austin Feb 18-19, 1978. The topics for discussion include basic techniques of oral communications, organization or structuring of materials, delivery, handling of questions and answers, and principles of good chairmanship and leadership styles. The registration fee is $125 for AMA members and medical society staff, and $175 for non-AMA members.

Contact: Communication Department, Texas Medical Association, 1801 N Lamar Blvd, Austin, Tex 78701.

DISTRICT I MEDICAL SOCIETY, TEXAS MEDICAL ASSOCIATION

Saturday, Feb 11, 1978, is the date of the District I Medical Society's annual meeting. The meeting, held jointly with the El Paso County Medical Society, takes place at the Granada Royale Hometel, 6100 Gateway East, El Paso. Registration begins at 7:30 am. The program begins at 8:30 am with Dr Luther B. Travis' presentation titled, "Juvenile Diabetes Mellitus, The Importance of 'Control' and Methods of Achieving It." Dr Travis is a professor in the Department of Pediatrics, UT Medical Branch, Galveston.

Contact: Laurance N. Nickey, MD, 1515 N Oregon St, El Paso 79902.

TEXAS ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS

The Texas Association of Obstetricians and Gynecologists will conduct its annual meeting at Lakeway Inn and Marina, Lakeway, Tex, March 2-4, 1978. The scientific program will focus on gynecologic oncology and pathology.

Contact: William H. Nash, Sec-Treas, Oak Hills Medical Building, Suite 304, 7711 Luis Pasteur Dr, San Antonio, Tex 78229.

MEETINGS

CURRENT NATIONAL MEETINGS

AMERICAN GROUP PRACTICE ASSOCIATION, Group Practice Innovations in Health Services for Industry, Maxim Hotel, Las Vegas, Feb 9-11, 1978. Cosponsored by American Academy of Medical Directors. 11½ hours, Category 1, AMA Physician's Recognition Award. Topics: occupational health services, assessing community need/developing marketing strategy, how to start a program, sources of revenue, medical-legal issues. Faculty: Alan C Bendon, manager, Group Life and Disability Insurance, General Motors Corporation, Detroit; W Grayburn Davis, MD, executive vice-president, American Group Practice Association, Alexandria, Va; David P Discher, MD, San Jose (Calif) Medical Clinic; Bruce Douglass, MD, Mayo Clinic, Rochester, Minn; others. Registration fee: first registrant, $110; additional registrants (from same group), $85. Contact: American Group Practice Association, Educational Services, 20 S Quaker Lane, Alexandria, Va 22314.

AMERICAN MEDICAL ASSOCIATION, 74th Congress on Medical Education, Palmer House, Chicago, Feb 3-5, 1978. Presented by AMA Council on Medical Education, Association for Hospital Medical Education, Federation of State Medical Boards of the United States, AMA Resident Physician Section, AMA Medical Student Business Session. Program includes discussions of relationships with government; impact of health planning on medical education; changing relationships of medical school, hospital, medical society, professions; changing relationships of professions—academic; Federation of State Medical Boards of the United States; foreign medical graduates. Registration fees: students, $5; interns and residents, $10; others, $40. Contact: Department of Meeting Services, American Medical Association, 535 N Dearborn St, Chicago 60610.

For other courses and symposia, see Continuing Education Courses, pp 36-38.

FEBRUARY

AMERICAN ACADEMY OF ALLERGY, Phoenix, Ariz, Feb 25-Mar 1, 1978. Raymond G Slavin, MD, Exec Off, 1402 S Grand, St Louis 63104.

■ AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS, Dallas, Feb 23-28, 1978. Charles V Heck, MD, Exec Dir, 430 N Michigan Ave, Chicago 60611.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, Washington, DC, Feb 12-17, 1978. 1515 Massachusetts Ave, NW, Washington, DC 20005.

AMERICAN ASSOCIATION OF GENITO-URINARY SURGEONS, Key Largo, Fla, Feb 22-26, 1978. RA Straffon, MD, Sec-Treas, 2020 E 93rd St, Cleveland 44106.

AMERICAN COLLEGE OF PSYCHIATRISTS, New Orleans, Feb 8-12, 1978. JC Nemiah, MD, Admn Officer, Beth Israel Hospital, 330 Brookline Ave, Boston 02215.

■ AMERICAN COLLEGE OF SURGEONS, SOUTH TEXAS CHAPTER, Houston, Feb 2-4, 1978. Peter B Fisher, MD, Pres, 615 Medical Towers Bldg, Houston 77025.

AMERICAN GROUP PSYCHOTHERAPY ASSOCIATION, New Orleans, Feb 21-25, 1978. Ms MS Block, Exec Sec, 1995 Broadway, 14th Fl, New York 10023.

AMERICAN MEDICAL ASSOCIATION, 74th Congress on Medical Education, Chicago, Feb 3-5, 1978. Department of Meeting Services, 535 N Dearborn St, Chicago 60610.

■ AMERICAN ORTHOPAEDIC FOOT SOCIETY, Dallas, Feb 22-23, 1978. RA Mann, MD, Sec, 3334 Webster St, Oakland, Calif 94609.

■ AMERICAN SOCIETY FOR SURGERY OF THE HAND, Dallas, Feb 19-24, 1978. RJ Smith, MD, Sec, Dept of Orthopaedics, Massachusetts General Hospital, Fruit St, Boston 02114.

ASSOCIATION FOR THE ADVANCEMENT OF MEDICAL INSTRUMENTATION, Chicago, Feb 25-Mar 1, 1978. MJ Miller, JD, Exec Dir, 1901 N Ft Myer Dr, Suite 602, Arlington, Va 22209.

ASSOCIATION OF CONVALESCENT HOMES AND HOSPITALS FOR ASTHMATIC CHILDREN, Phoenix, Ariz, Feb 23-24, 1978. I Friedman, Exec Vice-pres, Spring Valley Rd, Ossining, NY 10562.

■ DISTRICT I MEDICAL SOCIETY, TEXAS MEDICAL ASSOCIATION, El Paso, Tex, Feb 11, 1978. Laurance N Nickey, MD, 1515 N Oregon St, El Paso, Tex 79902.

FEDERATION OF WESTERN SOCIETIES OF NEUROLOGICAL SCIENCES, INC, San Francisco, Feb 23-26, 1978. Leon G Kaseff, MD, Prog Chmn, 1783 El Camino Real, Burlingame, Calif 94010.

SOUTH CENTRAL ASSOCIATION OF BLOOD BANKS, Jackson, Miss, Feb 21-24, 1978. Marti Ginest, Exec Sec, 4300 N Lamar Blvd, Austin, Tex 78756.

■ SOUTH PLAINS CHAPTER, TEXAS ACADEMY OF FAMILY PHYSICIANS, Lubbock, Tex, Feb 25, 1978. Norma Porres, MD, Sec, 4005 24th St, Lubbock 79410.

■ TEXAS ACADEMY OF FAMILY PHYSICIANS, ALAMO CHAPTER, San Antonio, Tex, Feb 17-19, 1978. Raymond Hernandez, Jr, MD, Gen Chmn, 2200 McCullough Ave, San Antonio, Tex 78212.

WESTERN MEDICAL SOCIETY FOR THE STUDY OF TRAUMA, Steamboat Springs, Colo, Feb 18-25, 1978. AA Torre, MD, Sec-Treas, 3797 E Shields, Fresno, Calif 93728.

MARCH

AMERICAN COLLEGE OF CARDIOLOGY, Anaheim, Calif, Mar 6-9, 1978. William D Nelligan, CAE, Exec Officer, 9650 Rockville Pike, Bethesda, Md 20014.

AMERICAN SOCIETY FOR CLINICAL PHARMACOLOGY AND THERAPEUTICS, Atlanta, Mar 29-31, 1978. 1718 Gallagher Rd, Norristown, Pa 19401.

AMERICAN FERTILITY SOCIETY, New Orleans, Mar 29-Apr 1, 1978. HH Thomas, MD, Medical Dir, 1608 13th Ave S, Suite 101, Birmingham, Ala 35205.

AMERICAN PSYCHOSOMATIC SOCIETY, Washington, DC, Mar 30-Apr 1, 1978. MA Hofer, MD, Sec-Treas, 265 Nassau Rd, Roosevelt, NY 11575.

AMERICAN SOCIETY OF ABDOMINAL SURGEONS, Las Vegas, Nev, Mar 10-15, 1978. BF Alfano, MD, Exec Sec, 675 Main St, Melrose, Mass 02176.

AMERICAN SOCIETY OF REGIONAL ANESTHESIA, San Francisco, Mar 18-19, 1978. H Carron, Sec-Treas, Box 11083, Richmond, Va 23230.

ASSOCIATION FOR HOSPITAL MEDICAL EDUCATION, Atlanta, Mar 22-26, 1978. Ms GM Coleman, Admn Dir, 1911 Jefferson Davis Hwy, Suite 905, Arlington, Va 22202.

CALIFORNIA MEDICAL ASSOCIATION, San Francisco, Mar 17-22, 1978. WW Babb, Exec Dir, 731 Market St, San Francisco 94103.

INTERNATIONAL ACADEMY OF PATHOLOGY, INC, Atlanta, Mar 6-10, 1978. Leland D Stoddard, MD, Sec-Treas, Department of Pathology, Medical College of Georgia, Augusta, Ga 30902.

INTERNATIONAL ENDORADIOTHERAPY SYMPOSIUM, Los Angeles, Mar 10-12, 1978. JA Lipsett, MD, Department of Radiology, Los Angeles County-University of Southern California Medical Center, 1200 N State St, Los Angeles 90033.

INTRAOCULAR LENS SYMPOSIUM, Los Angeles, Mar 14-18, 1978. KJ Hoffer, MD, Chmn, American Intraocular Implant Society, Box 3140, Santa Monica, Calif 90403.

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY, New Orleans, Mar 19-23, 1978. Lois Neary, Exec Officer, 1430 Tulane Ave, New Orleans 70112.

■ NINTH DISTRICT DISTRICT MEDICAL SOCIETY, TEXAS MEDICAL ASSOCIATION, Crosby, Tex, Mar 23, 1978. Paul Jordan, Exec Dir, Houston Academy of Medicine, 103 Jesse H Jones Library Bldg, Houston 77030.

■ TEXAS ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS, Lakeway, Mar 2-4, 1978. William H. Nash, MD, Sec-Treas, 7711 Louis Pasteur Dr, San Antonio, Tex 78229.

APRIL

AMERICAN CLEFT PALATE ASSOCIATION, Atlanta, Apr 5-8, 1978. Mrs Flora P Berk, Admn Sec. 331 Salk Hall, University of Pittsburgh, Pittsburgh 15261.

AMERICAN COLLEGE OF ALLERGISTS, Las Vegas, Nev, Apr 1-6, 1978. 2141 14th St, Boulder, Colo 80302.

AMERICAN GERIATRICS SOCIETY, INC, Atlanta, Apr 13-14, 1978. Mrs Kathryn S Henderson, Exec Dir, 10 Columbus Circle, New York 10019.

AMERICAN COLLEGE OF PHYSICIANS, Boston, Apr 17-20, 1978. RH Moser, MD, Exec Vice-pres, 4200 Pine St, Philadelphia 19104.

AMERICAN COLLEGE OF RADIOLOGY, San Diego, Apr 9-14, 1978. WC Stronach, Exec Dir, 20 N Wacker Dr, Chicago 60606.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY, Palm Beach, Fla, Apr 25-27, 1978. RL Ruggles, MD, Exec Sec, c/o Ann Holm, 2954 Dorman Rd, Broomall, Pa 19008.

AMERICAN MEDICAL SOCIETY ON ALCOHOLISM, St Louis, Apr 27-May 3, 1978. JG Chen See, MD, Sec, 733 Third Ave, New York 10017.

■ AMERICAN MEDICAL STUDENTS ASSOCIATION-UT MEDICAL BRANCH NATIONAL STUDENT RESEARCH FORUM, Galveston, Tex, Apr 26-29, 1978. 209 Basic Sciences Bldg, UT Medical Branch, Galveston, Tex 77550.

AMERICAN PHYSIOLOGICAL SOCIETY, Atlantic City, NJ, Apr 9-14, 1978. OE Reynolds, PhD, Exec Sec-Treas, 9650 Rockville Pike, Bethesda, Md 20014.

■ HOLISTIC HEALTH ASSOCIATION, Houston, Apr 15-16, 1978. Gail Stephenson, 5001 Richmond, Houston 77056.

ILLINOIS STATE MEDICAL SOCIETY, Chicago, Apr 1-5, 1978. RN White, Exec Admn, 55 E Monroe St, Suite 3510, Chicago 60603.

MEDICAL ASSOCIATION OF GEORGIA, Jekyll Island, Ga, Apr 21-23, 1978. JM Moffett, Exec Dir, 938 Peachtree St NE, Atlanta 30309.

NEBRASKA MEDICAL ASSOCIATION, Lincoln, Neb, Apr 30-May 3, 1978. KE Neff, Exec Sec, 1901 First National Bank, Lincoln, Neb 68508.

PAN-PACIFIC SURGICAL ASSOCIATION, Honolulu, Apr 1-7, 1978. Cesar B deJesus, MD, Sec, Public Relations, Room 237, Alexander Young Bldg, Honolulu 96813.

■ SOCIETY FOR BIOMATERIALS, San Antonio, Tex, Apr 29-May 2, 1978. C William Hall, MD, Program Committee Co-Chmn, 8500 Culebra Rd, San Antonio, Tex 78284.

STATE MEDICAL SOCIETY OF WISCONSIN, Milwaukee, Apr 13-15, 1978. ER Thayer, Sec and Gen Mgr, 330 E Lakeside, Madison, Wis 53701.

MAY

AMERICAN ACADEMY OF FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY, Palm Beach, Fla, May 1978. ME Tardy, Jr, MD, Sec, 2800 Lake Shore Dr, Chicago 60657.

■ AMERICAN ACADEMY OF PEDIATRICS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. William S Conkling, MD, Chmn, Box 311, Navasota, Tex 77868.

AMERICAN ACADEMY OF PSYCHOANALYSIS, Atlanta, May 5-7, 1978. Ms C Bruskin, Exec Sec, 40 Gramercy Park N, New York 10010.

AMERICAN ASSOCIATION OF CLINICAL UROLOGISTS, Washington, DC, May 19-20, 1978. BH Farber, Jr, Admn Officer, 2017 Walnut St, Philadelphia 19103.

AMERICAN ASSOCIATION FOR THORACIC SURGERY, New Orleans, May 8-10, 1978. WT Maloney, Exec Sec, 6 Beacon St, Suite 620, Boston 02108.

■ AMERICAN COLLEGE OF CHEST PHYSICIANS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. Charles B Shuey, Jr, MD, Pres, 3500 Gaston Ave, Dallas 75246.

AMERICAN COLLEGE OF LEGAL MEDICINE, San Francisco, May 5-7, 1978. Ms B Hanna, Exec Sec, 1340 N Astor St, Suite 2608, Chicago 60610.

AMERICAN LUNG ASSOCIATION, Boston, May 14-17, 1978. WF Roberts, Acting Mng Dir, 1740 Broadway, New York 10019.

AMERICAN PEDIATRIC SURGICAL ASSOCIATION, Hot Springs, Va, May 3-6, 1978. JA O'Neill, Jr, MD, Sec, Department of Pediatric Surgery, Vanderbilt University Hospital, Nashville, Tenn 37232.

AMERICAN PSYCHIATRIC ASSOCIATION, Atlanta, May 8-12, 1978. Dr M Sabshin, Med Dir, 1700 18th St NW, Washington, DC 20009.

AMERICAN PSYCHOANALYTIC ASSOCIATION, Atlanta, May 3-7, 1978. Ms H Fischer, Admn Dir, One E 57th St, New York 10022.

AMERICAN SOCIETY FOR GASTROINTESTINAL, Las Vegas, Nev, May 24, 1978. WT Maloney, Exec Sec, 6 Beacon St, Suite 620, Boston 02108.

AMERICAN SOCIETY OF INTERNAL MEDICINE, San Francisco, May 4-7, 1978. WR Ramsey, Exec Dir, 535 Central Tower Bldg, 703 Market St, San Francisco 94103.

■ FLYING PHYSICIANS ASSOCIATION, TEXAS CHAPTER, San Antonio, Tex, May 11, 1978. M Young Stokes III, MD, Pres, 331 W Morton St, Denison 75020.

■ INTERNATIONAL COLLEGE OF SURGEONS, TEXAS STATE SURGICAL DIVISION, San Antonio, Tex, May 11, 1978. Vincent T Caldarola, MD, Pres, 1001 Rosa Verde Towers, San Antonio, Tex 78205.

OKLAHOMA STATE MEDICAL ASSOCIATION, Oklahoma City, May 4-7, 1978. D Bickham, Exec Dir, 601 NW Expressway, Oklahoma City 73118.

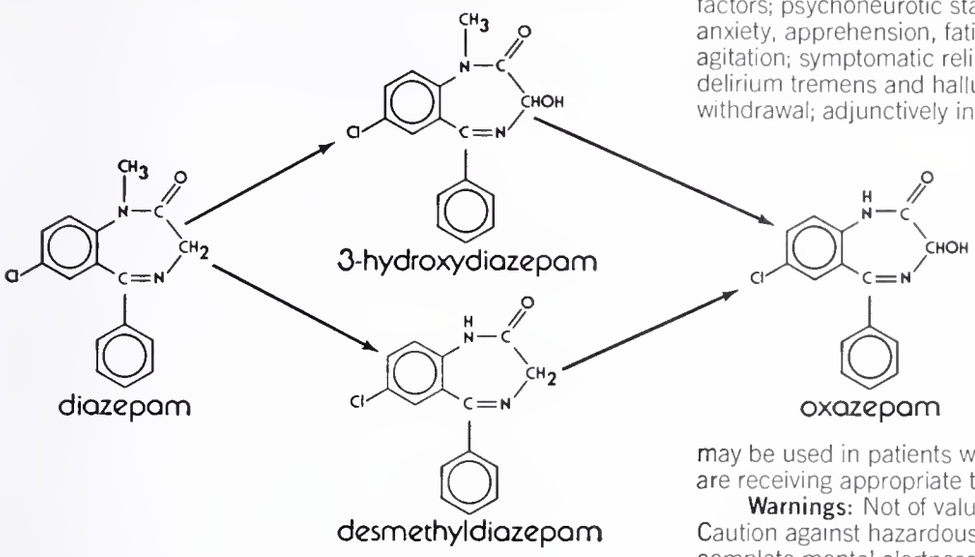
SOCIETY OF BIOLOGICAL PSYCHIATRY, Atlanta, May 4-7, 1978. Dr AW Epstein, Sec-Treas, 1430 Tulane Ave, New Orleans 70112.

■ TEXAS AIR-MEDICS ASSOCIATION, San Antonio, Tex, May 11, 1978. David F Eanes, Jr, MD, Pres, 518 N Fifth St, Temple, Tex 76501.

■ TEXAS ASSOCIATION OF NEUROLOGICAL SURGEONS, San Antonio, Tex, May 12, 1978. Robert A Partain III, MD, Vice-Pres & Prog Chmn, 510 Madison Professional Bldg, San Antonio, Tex 78215.

■ TEXAS ASSOCIATION OF PHYSICIANS IN NUCLEAR MEDICINE, San Antonio, Tex. May 13, 1978. Stanley E Hodges, Jr, MD, Pres, 3434 Swiss Ave #20, Dallas 75204.

A pharmacokinetic character all its own



Valium (diazepam) is a benzodiazepine with a distinctive pharmacokinetic profile

The pharmacokinetic profile of Valium is one of the characteristics that sets it apart from other benzodiazepines. Consider, in particular, the metabolic pathway of Valium. The three major metabolites of Valium exhibit significant pharmacologic activity—and so, of course, does the parent substance—diazepam itself. All combine to produce the characteristic clinical response seen with Valium. The response you have come to know, to want and to trust.

Pharmacokinetic studies also demonstrate that Valium has a pattern of absorption, distribution, metabolism and elimination that is reliable and consistent. And, although the pharmacokinetics of a drug cannot, at present, be specifically related to its clinical effects, it is clearly a factor that distinguishes one product from another by providing important insights into how each moves through the patient's body.

Valium® (diazepam) IV

2-mg, 5-mg, 10-mg scored tablets

a prudent choice in psychic tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

CONTINUING EDUCATION COURSES

FEBRUARY

Basic Sciences: Pharmacology

Title: Drug Interaction
Sponsor: Division of Continuing Education, UT Health Science Center at Houston
Location of Course: Texas Medical Center, Houston
Date: Feb 19, 1978
Duration: Continuous; ½ day; Sunday; 4 total course hours
Fee: To be announced
Designed For: General practitioners; Specialists in Family Medicine
Credit: Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, lecture, open question
Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Chest Disease

Title: Practical Workshop in Pulmonary Disease
Sponsor: UT Health Science Center at San Antonio
Location of Course: To be announced
Dates: Feb 17-19, 1978
Duration: Continuous; 3 days; Friday-Sunday; 19 total course hours
Fee: $175
Designed For: General practitioners
Credit: Category 1, AMA Physician's Recognition Award; 19 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Family Medicine

Title: Family Practice Review 1978
Sponsor: Continuing Education Division, UT Medical Branch, Galveston
Location of Course: Galvez Hotel/Motel, 21st & Seawall, Galveston
Dates: Feb 5-11, 1978
Duration: Continuous; 6 days; 8 hours instruction per day; Monday-Saturday; 8 am-5 pm; 48 total course hours
Fee: $300
Designed For: General practitioners
Enrollment: Minimum, 60; Maximum, 120
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 48 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, patient demonstration, seminar, live clinic
Contact: NeKee McNulty, Assistant to the Director, Continuing Education Division, John Sealy Hospital, Eighth Floor, UT Medical Branch, Galveston 77550

General Medicine

Title: Cardiac Pacing for the Practitioner
Sponsor: UT Health Science Center at San Antonio
Location of Course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio
Dates: Feb 10-12, 1978
Duration: Continuous; 3 days; 4 hours instruction per day; Friday-Sunday; 12 total course hours
Fee: $50
Designed For: General practitioners; Specialists
Enrollment: Open
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 12 hours
Teaching Methods: Audiovisual materials, clinical conference (small group), lecture, open question, panel
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Title: Second Annual Conference on Alcoholism: The Medical Side
Sponsor: Texas Tech University School of Medicine, Lubbock
Location of Course: Regional Academic Health Center, 4800 Alberta, El Paso
Dates: Feb 24-25, 1978
Duration: Continuous; 2 days; Friday-Saturday
Fee: Physicians, $70; Non-physicians, $20
Designed For: General practitioners; Specialists in Psychiatry
Teaching Methods: Audiovisual materials, lecture, open question
Contact: Roy C. Allen, EdD, Director, Continuing Medical Education, Texas Tech University School of Medicine, Box 4569, Lubbock 79409

Geriatrics

Title: Parkinson's Disease: Aging and Neuroendocrine Relationships
Sponsors: Department of Pharmacology and Therapeutics, Office of Continuing Education, Texas Tech University School of Medicine, Lubbock; Tarbox Parkinson's Disease Institute
Location of Course: South Park Inn, Loop 289 & Indiana, Lubbock
Dates: Feb 2-4, 1978
Duration: Continuous; 3 days; Thursday-Saturday
Fee: To be announced
Designed For: General practitioners; Specialists in Physiology, Pharmacology, Geriatrics, Neurology, Endocrinology
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: Roy C. Allen, EdD, Director, Continuing Medical Education, Texas Tech University School of Medicine, Box 4569, Lubbock 79409

Surgery

Title: Annual Meeting, South Texas Chapter, American College of Surgeons
Sponsor: South Texas Chapter, American College of Surgeons
Location of Course: Shamrock Hilton Hotel, 6900 Main, Houston
Dates: Feb 2-4, 1978
Duration: Continuous; 2½ days; 8 hours instruction per day; Thursday-Saturday; 20 total course hours

Fee: None
Designed For: Specialists in General Surgery; All surgical specialists
Credit: Category 1, AMA Physician's Recognition Award; 20 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel
Contact: Peter B. Fisher, MD, President, South Texas Chapter, American College of Surgeons, 615 Medical Towers Bldg, Houston 77030

Internal Medicine

Title: Current Methods, Treatment, and Diagnosis of Arthritis and Rheumatic Diseases
Sponsor: Baylor College of Medicine, Houston
Location of Course: Shamrock Hilton Hotel, 6900 Main, Houston
Date: Feb 4, 1978
Duration: Continuous; 1 day; Saturday; 8 total course hours
Fee: To be announced
Designed For: General practitioners; Specialists in Internal Medicine, Family Medicine, Physical Medicine & Rehabilitation
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 8 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Ophthalmology

Title: 15th Annual Baylor Ophthalmology Residents Alumni Meeting
Sponsor: Department of Ophthalmology, Baylor College of Medicine, Houston
Location of Course: Cullen Eye Institute, Texas Medical Center, Houston
Date: Feb 22, 1978
Duration: 1 day
Fee: To be announced
Designed For: Specialists in Ophthalmology
Credit: Category 1, AMA Physician's Recognition Award
Credit: Category 1, AMA Physician's Recognition Award
Teaching Methods: Audiovisual materials, lecture, open question
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Title: Baylor International Congress of Ophthalmology
Sponsor: Baylor College of Medicine, Houston
Location of Course: Cullen Eye Institute, Texas Medical Center, Houston
Dates: Feb 22-25, 1978
Duration: Continuous; 4 days; Wednesday-Saturday
Fee: $175; Basic scientists, $20 per day; Residents, $20 per day
Designed For: Specialists in Ophthalmology
Credit: Category 1, AMA Physician's Recognition Award
Teaching Methods: Audiovisual materials, lecture, open question, panel
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Pediatrics

Title: Annual Pediatric Postgraduate Symposium, Perinatology
Sponsor: Baylor College of Medicine, Houston
Location of Course: Marriott Motor Hotel, 2100 S Braeswood, Houston
Dates: Feb 16-17, 1978
Duration: Continuous; 2 days; 6½ hours instruction per day; 13 total course hours
Fee: $100
Designed For: General practitioners; Specialists in Pediatrics
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 13 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Radiology & Radioisotopes

Title: Third Annual General Diagnostic Radiology Seminar
Sponsors: Department of Radiology, UT Health Science Center at Dallas; Parkland Memorial Hospital
Location of Course: Fairmont Hotel, Ross & Akard, Dallas
Dates: Feb 2-4, 1978
Duration: Continuous; 2½ days; Thursday-Saturday; 18 total course hours
Fee: $225
Designed For: Specialists in Radiology
Credit: Category 1, AMA Physician's Recognition Award; 18 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

MARCH

Basic Sciences: Microbiology & Immunology

Title: Basic Immunology for the Clinician
Sponsors: Immunology Faculty, UT Health Science Center at Dallas
Location of Course: UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas
Date: March 1-4, 1978
Duration: Continuous; 3½ days; Wednesday-Saturday; 30 total course hours
Designed For: General practitioners; Specialists
Credit: Category 1, AMA Physician's Recognition Award; 30 hours
Teaching Methods: Audiovisual mate-

rials, lecture, open question, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Cardiovascular Disease

Title: Echocardiography in Clinical Practice
Sponsors: UT Health Science Center at San Antonio; Council on Clinical Cardiology, American Heart Association
Location of Course: Hyatt Regency Hotel, Acapulco, Mexico
Date: March 1-4, 1978
Duration: Continuous; 4 days; 6 hours instruction per day; Wednesday-Saturday; 8 am-6 pm; 22 total course hours
Fee: $150 plus travel expenses
Designed For: Specialists in Cardiovascular Disease
Enrollment: Minimum, 100; Maximum, 250
Credit: AAFP; Category 1, AMA Physician's Recognition Award; 22 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Chest Disease

Title: Practical Management of Pulmonary Diseases
Sponsors: American College of Physicians, Philadelphia; Scott and White Memorial Hospital
Location of Course: Sid Richardson Auditorium, 2401 S 31st St, Temple
Date: March 1-3, 1978
Duration: Continuous; 3 days; 7 hours instruction per day; Wednesday-Friday; 9 am-5 pm; 21 total course hours
Fee: American College of Physicians members, residents, $130; Associates, $65; Nonmembers, $195
Designed For: General practitioners; Specialists
Enrollment: Minimum, 50; Maximum, 125
Credit: Category 1, AMA Physician's Recognition Award; 21 hours
Teaching Methods: Audiovisual materials, clinical conference, lecture, open question, panel
Contact: Linda M. Salsinger, Registrar, Postgraduate Courses, American College of Physicians, 4200 Pine St, Philadelphia 19104

Emergency Care

Title: Advanced Life Support Provider Course
Sponsors: UT Health Science Center at San Antonio, American Heart Association
Location of Course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio
Date: March 10-12, 1978
Duration: Continuous; 3 days; Friday, 5-8 pm; Saturday, 8 am-5 pm; Sunday, 8 am-12 pm; 12 total course hours
Fee: $100
Designed For: General practitioners; Specialists in Emergency Care
Credit: Category 1, AMA Physician's Recognition Award; 12 hours; Continuing Education Approval and Recognition Program (CEARP)
Teaching Methods: Audiovisual materials, lecture, open question, small group stations
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

General Medicine

Title: To be announced
Sponsors: Ninth District Medical Society, Houston
Location of Course: Newport Country Club, Crosby
Date: March 23, 1978
Duration: Continuous; 1 day
Fee: None
Designed For: General practitioners; Various specialists
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: John W. Nichols, MD, Secretary-Treasurer, Ninth District Medical Society, 103 Jesse H. Jones Library Bldg, Houston 77030

Geriatrics

Title: Geriatrics
Sponsors: Continuing Education Division, UT Medical Branch, Galveston; Sandoz Pharmaceuticals
Location of Course: Galvez Hotel/Motel, 21st & Seawall, Galveston
Date: March 12-16, 1978
Duration: Continuous; 5 days; Sunday-Thursday
Fee: $75
Designed For: General practitioners; Specialists in Geriatrics, Psychiatry
Enrollment: Minimum, 60; Maximum, 120
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 12-15 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar, live clinic
Contact: NeKee McNulty, Assistant to the Director, Continuing Education Division, John Sealy Hospital, Eighth Floor, UT Medical Branch, Galveston 77550

TEXAS MEDICAL ASSOCIATION
111th
ANNUAL SESSION
May 11-14 1978
SAN ANTONIO

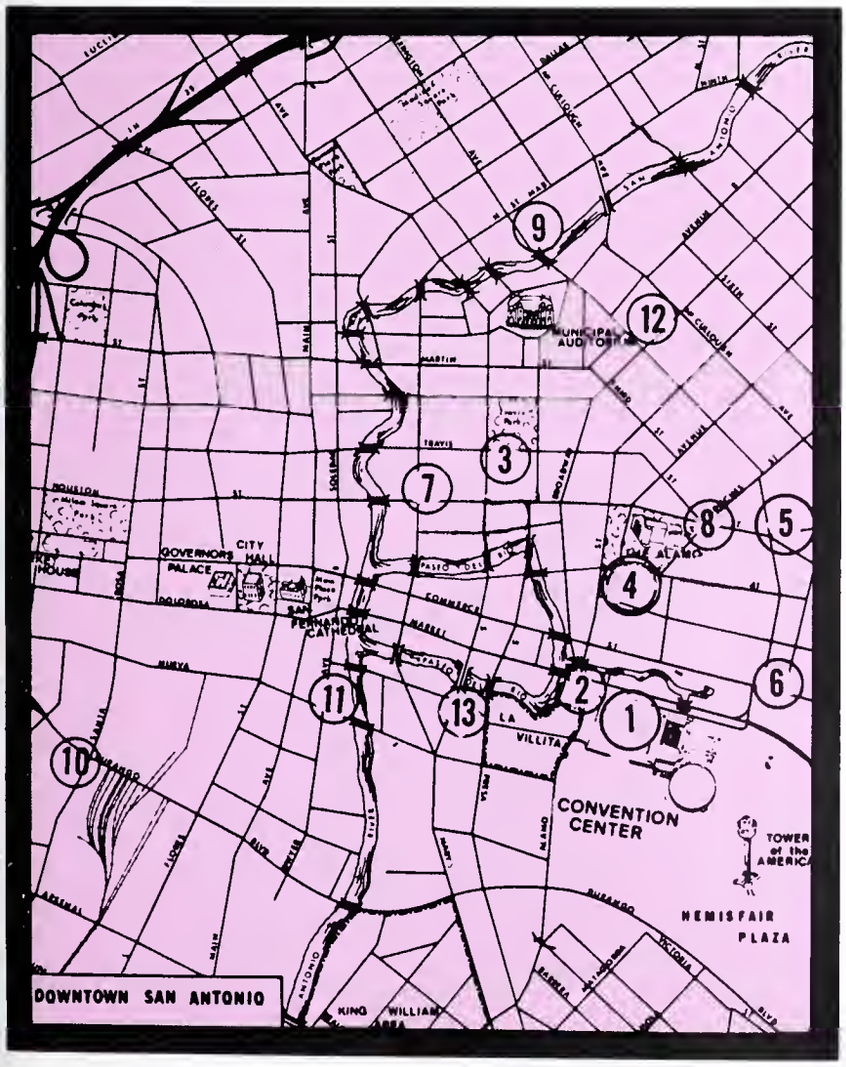
WELCOME TO SAN ANTONIO

HOUSING, ADVANCE REGISTRATION AND TICKET ORDER FORMS

FEATURING

58 GUEST SPEAKERS plus 400 special and TMA-member speakers.

22 SECTION PROGRAMS: Allergy, Colon and Rectal Surgery, Digestive Diseases, Diseases of the Chest, Family Practice, Internal Medicine, Neurological Surgery, Neurology, Nuclear Medicine, Obstetrics and Gynecology, Occupational Medicine, Ophthalmology, Otolaryngology, Pathology, Pediatrics, Physical Medicine and Rehabilitation, Plastic, Reconstructive, and Maxillofacial Surgery, Psychiatry, Public Health, Radiology, Surgery, Urology.



AMA-TMA POSTGRADUATE COURSES scheduled Saturday, May 13, 9 a.m.-12 Noon and 2-5 p.m. and Sunday, May 14, 8 a.m.-1 p.m. Saturday courses include two three-hour courses and three six-hour courses, and Sunday five five-hour courses will be offered. All courses will be acceptable for Category I credit, AMA Physician's Recognition Award. Course fees are $10 per hour of instruction. The fee for the Sunday courses is $55 which includes breakfast. (Registration information will be sent to membership in a separate mailing.)

Chest Roentgenograms—Office and Emergency Surgical Procedures—Basic Electrocardiography—Important Recent Advances in Drug Therapy—Chronic Obstructive Lung Disease—Acid-Base, Fluid and Electrolyte Balance—Pulmonary Function and Blood Gases—Office Dermatology—Cardiac Arrhythmias—Infectious Diseases.

21 CURBSTONE CONSULTATIONS. Person-to-person conversational discussions of cases and problems of general medical interest.

14 CONTINENTAL BREAKFAST PRESENTATIONS. Join guest speakers for coffee, rolls, and short lectures Friday and Saturday mornings. Then participate in the informal half-hour discussion period following.

30 SPECIALTY SOCIETY PROGRAMS—7 SPECIAL COMMITTEE SYMPOSIUMS—130 SCIENTIFIC AND TECHNICAL EXHIBITS—FORUM OF ORIGINAL RESEARCH—PHYSICIANS' AND SPOUSES' ART EXHIBITION.

SPORTS/ENTERTAINMENT. Golf Tournament, Tennis Tournament, Fraternity and Alumni Parties, Class Reunions.

GERMAN MAY FEST on Friday, May 12, 7-11 p.m. will feature an oompah band and German food booths.

SAN ANTONIO CONVENTION AND VISITORS BUREAU
P.O. BOX 2277
SAN ANTONIO, TEXAS 78298

MAIL TO: TEXAS MEDICAL ASSOCIATION
1801 NORTH LAMAR BOULEVARD, AUSTIN, TEXAS 78701

NUMBER OF TICKETS	FUNCTIONS AND PRICE (inclusive of tax and gratuity)	AMOUNT
_____	GERMAN MAY FEST—Friday (May 12) @ $17.50 per person	_____
_____	GENERAL MEETING LUNCHEON—Friday (May 12) @ $6.50 per person	_____
_____	GENERAL MEETING LUNCHEON—Saturday (May 13) @ $6.50 per person	_____
	CHECK ENCLOSED FOR TOTAL	_____

BE SURE TO FILL OUT THE ADVANCE REGISTRATION FORM ON THE OTHER SIDE AND RETURN PRIOR TO APRIL 25.

ADVANCE REGISTRATION FORM

NAME _____

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CITY _____ ZIP _____

SPECIALTY _____

CONVENTION ADDRESS _____

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I will pick up my convention materials at:

☐ San Antonio Convention Center (Wednesday-Saturday)

☐ St. Anthony Hotel (Wednesday only)

Mail to:
Texas Medical Association
1801 North Lamar Boulevard
Austin, Texas 78701

PLEASE PLACE A CHECK MARK ☑ IN THE APPROPRIATE REGISTRANT BOX BELOW:

☐ MEMBER PHYSICIAN/MEDICAL STUDENT
(check below, if applicable)

_____ Intern/Resident
_____ Medical Student
_____ Member Speaker
_____ Scientific Exhibitor
_____ President, County Medical Society
_____ Delegate
_____ Alternate
_____ Councilor
_____ Vice Councilor
_____ TMA Council Chairman

☐ NONMEMBER PHYSICIAN/MEDICAL STUDENT
(check below, if applicable)

_____ Guest Speaker
_____ Scientific Exhibitor
_____ Special Essayist
_____ Intern/Resident
_____ Medical Student

☐ GUEST Please indicate name of firm or institution you represent and program you will be attending.

_____
(firm or institution)

_____
(TMA program/seminar to attend)

ADVANCE REGISTRATION FORM

PLEASE PRINT OR TYPE—THREE CHOICES

1st _____

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ROOM WILL BE OCCUPIED BY:

NAME _____

STREET _____

CITY _____

STATE _____ ZIP _____

ADDITIONAL OCCUPANTS _____

_____

TYPE OF ACCOMMODATIONS

Single(s) _____

Twin(s) _____

Double(s) _____

Suite(s) _____

DATE ARRIVING

_____

HOUR _____ AM PM

DATE DEPARTING

_____

REQUEST FOR HOTEL OR MOTEL RESERVATIONS

TEXAS MEDICAL ASSOCIATION ANNUAL SESSION MAY 11-14, SAN ANTONIO

MAKE YOUR RESERVATIONS NOW!

Reservations not accepted by telephone. Select your first, second and third choice of hotels and motels from the list below, complete the housing request card and mail it to the San Antonio Convention and Visitors Bureau. Preferences will be honored as far as possible, and confirmation of reservations will be sent directly to you from the hotel or motel.

2—Hilton Palacio del Rio
Scientific Sessions Co-Headquarters

3—St. Anthony Hotel
Business Sessions

FILLED

4—Menger Hotel & Motor Inn
Scientific Sessions Co-Headquarters

5—Downtowner Motel

6—La Quinta-Convention Center

7—Gunter Hotel

8—Crockett Motor Inn

9—El Tropicano Motor Hotel

10—Holiday Inn-Alamo Area

11—TraveLodge-Court House Square

12—Alamo TraveLodge

13—Granada Inn

ADVANCE REGISTRATION AND TICKET ORDERS

Save time and effort by registering in advance. Fill out the card at below left, mail it to TMA, and your registration packet will be waiting for you. There is no registration fee for TMA members. Registration materials may be pcked up at the San Antonio Convention Center and the St. Anthony Hotel. Don't forget the ticket order form on the back of the advance registration card.

GENERAL MEETING LUNCHEONS

Friday, May 12, 12:15 p.m., San Antonio Convention Center
Luncheon speaker will be Edward Teller, Ph.D., Nuclear Physicist, Lawrence Livermore Laboratories, Livermore, California.

Saturday, May 13, 12:15 p.m., San Antonio Convention Center
Speaker pending.

DELEGATES' LUNCHEON

Thursday, May 11, 1 p.m., San Antonio Convention Center
Luncheon speaker will be John H. Budd, M.D., President, American Medical Association, Cleveland, Ohio

MAY FEST

Join your friends for TMA's own special German May Fest, Friday, May 12, 7-11 p.m.—complete with beer, sausages, and an oompah band.

GUEST SPEAKERS

HARLAN C. AMSTUTZ, M.D.
Los Angeles, Calif.
orthopaedics

CURTIS P. ARTZ, M.D.
Charleston, S.C.
surgery

SUSAN P. BAKER, M.P.H.
Baltimore, Md.
public health

RODNEY BLUESTONE, M.B.
Los Angeles, Calif.
internal medicine (rheumatology)

LLOYD L. BRANDBORG, M.D.
San Francisco, Calif.
internal medicine (gastroenterology)

CHRISTOPHER W. BRYAN-BROWN, M.D.
New York, N.Y.
anesthesiology

BENJAMIN F. BYRD, JR., M.D.
Nashville, Tenn.
surgery

ROBERT W. CANTRELL, M.D.
Charlottesville, Va.
otolaryngology

STEVEN T. CHARLES, M.D.
Memphis, Tenn.
ophthalmology

DAVID A. CULP, M.D.
Iowa City, Iowa
urology

JOHN K. DAVIDSON III, M.D., Ph.D.
Atlanta, Ga.
internal medicine (endocrinology)

JOHN L. DECKER, M.D.
Bethesda, Md.
internal medicine (arthritic and metabolic diseases)

JOHN W. DUCKETT, JR., M.D.
Philadelphia, Pa.
pediatric urology

THOMAS F. DUTCHER, M.D.
Royal Oak, Mich.
hematopathology

JOHANN L. EHRENHART, M.D.
Iowa City, Iowa
thoracic and cardiovascular surgery

GARY G. FERGUSON, M.D.
London, Ont., Can.
neurosurgery

LLOYD J. FILER, JR., M.D., Ph.D.
Iowa City, Iowa
pediatrics

FRANK A. FINNERTY, JR., M.D.
Washington, D.C.
internal medicine (cardiology)

J. BRYON GATHRIGHT, JR., M.D.
New Orleans, La.
colon and rectal surgery

STANLEY M. GOLDBERG, M.D.
Minneapolis, Minn.
colon and rectal surgery

DANIEL HALPERN, M.D.
Minneapolis, Minn.
physical medicine and rehabilitation

ROBERT N. HAMBURGER, M.D.
La Jolla, Calif.
pediatrics, allergy and immunology

SAMUEL L. KATZ, M.D.
Durham, N.C.
pediatrics

PAUL KOTIN, M.D.
Denver, Colo.
occupational medicine

KERMIT E. KRANTZ, M.D.
Kansas City, Kan.
obstetrics and gynecology

DAVID J. KUDZMA, M.D.
Miami Beach, Fla.
internal medicine (endocrinology)

HERBERT G. LANGFORD, M.D.
Jackson, Miss.
internal medicine (endocrinology)

JOHN M. LORE, JR., M.D.
Buffalo, N.Y.
otolaryngology

HOWARD I. MAIBACH, M.D.
San Francisco, Calif.
dermatology

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Health care consumer advice can benefit the aged and their families

Joyce A. De Ridder, PhD

Articles that offer advice on how to care for or improve physical and mental health are increasing in the popular literature, and in 1976, two new books were published that offer advice to adults on a wide range of problems which they and their aging parents may face.[1,2] The books provide readers with concrete recommendations concerning what aging parents should expect from a doctor and how sons and daughters should be involved in their parents' health care.

Although these books were written for the professional working with the aged as well as for the families of the elderly, they illustrate a growing body of material telling consumers how to choose doctors, how to evaluate them, when to change them, and even how to reeducate them to serve a more enlightened and assertive type of patient.

In essence, popular journalism seems to be proclaiming two messages. The first message is, "Question. Do not be satisfied with not understanding a matter that is of vital importance to you. Do not accept everything you are told without evidence to support it."

The first message is integrally linked with the second, which is, "You can do more for yourself than you have been led to think you can." The common premise of the two is, "The more you know, the better you are able to ask the important questions."

As an educator, I like these messages. They appear to herald the approaching demystification of medicine. On the whole I see this as a blessing—a very special blessing for the elderly, and a potential blessing for physicians if they choose to take advantage of it. Those in the medical profession who do not already appreciate these consumer trends will come to advocate them, I believe, if they examine their implications.

A Seminar for Health Care Consumers

Because the demystification of medicine has such great potential for improving communication between physicians and patients, thereby improving medical care, I have designed a seminar, "You and Your Aging Parents," for presentation to adults of various backgrounds. Much of the information presented can be found in the two aforementioned books. Some is from other sources, but all of it represents my convictions and experience and a growing body of opinion among health care consumers.

Characteristics of the Participants

The seminar is intended for groups of about 20, and the approach is not academic. Participants share experiences, and all are involved because of a personal conviction that a need exists and that there must be some way to meet that need.

Adults who are attracted to the seminar tend to be those who feel in a state of crisis regarding their parents. Many of the problems they face are related to physical conditions which are not amenable to a medical solution; nevertheless, the physician is often the one person who plays a regular advisory and consulting role in the life of the aged person.

The majority of the participants in the seminar are women, and if they have only

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one parent surviving, it is usually the mother. Also, they tend to be from the middle class and are not aware of, or accustomed to utilizing, community resources.

All of these characteristics are determinants in the seminar's content. In addition, I have begun with the assumption that most physicians who treat the elderly are likely to resist changes in patient or patient-family behavior that will be motivated by this type of advice to health care consumers.

Advice to Seminar Participants

First to be described are the characteristics that should be sought in the physician who treats the aging parent. Although finding all the characteristics in one doctor is difficult, the ideal provides some criteria by which to judge any new doctor or to reappraise the physician who is currently seeing the parent.

An unfortunate collusion to which both doctors and patients have been parties is challenged—a collusion in which each uses the other to endorse his own false notions of himself: first, that patients know less than they do and are incapable of learning more about their own health care; and second, that doctors know more than they do and are capable of being the sole outside professional to offer advice in the care of the elderly patient.

Physicians who have explored their own feelings about aging, their own aging, their parents' aging, and that of patients, and who have examined the widely held stereotypes and rejected the popular myths concerning the aged, are better prepared to work with interested families and their parents than those who have not done so. Physicians have been culturally conditioned in the same society as the rest of us, and have had just as little formal opportunity to examine their attitudes toward aging. Medical schools are only now beginning to be aware of the need to prepare doctors for geriatric practice, and most are still in the stage of discussing what to do. If a physician has the desirable characteristic of being attuned to the problems of aging, it is probably because he has explored these areas on his own.

The participants are told not to *assume* that their parent's physician knows enough about geriatric medicine to diagnose their parent's condition correctly or adequately. For the most part, medical training orients physicians to the treatment of acute illnesses. In diagnosis, they have been taught to operate on the principle that "one should not invoke any more assumptions or entities than the minimum necessary to explain a situation." Because of the problems of multiple diseases and complications in the aged, this is an inappropriate guiding principle.

Often the doctor does not find that treating the aged is intrinsically rewarding. The aged suffer largely from chronic conditions which are, at best, held in check but not cured. Most physicians want to see improvement and success.

The participants are advised to seek a physician who will do more than tolerate their involvement in their parent's health care. It is often a good idea for an adult son or daughter to go with a parent for the first visit to a new doctor. The first visit will give them some idea of the amount and quality of time the doctor is willing to spend with their parent. If the doctor is inattentive, abrupt, and mechanical in treating their parent, then he is not the physician they seek. If no other options exist, the relatives and the patient should not let the physician's behavior intimidate them. They should not have to tolerate behavior in a physician that would be intolerable in anyone else. The physician who is best suited to treat an aging person is one who prefers questions and encourages them. A doctor who willingly spends time explaining what he is doing, and what can be done to maintain the patient's health, will have fewer unnecessary demands placed on him and few-

er emotional problems of families to deal with.

A number of uncomplicated procedures that usually have been handled by a doctor or nurse—taking the blood pressure, for example—can be done safely by a son or daughter. Doing things that are safe to do will take away some of the mystique of the medical profession, make the individual more relaxed with the physician, and relieve all parties of unnecessary and frustrating experiences in which the health care consumers perceive themselves as ignorant and have that perception reinforced by the doctor. Most doctors will not suggest many things that aged patients can do for themselves or that their families can do for them. Participants are advised to take the initiative.

The best physician for the aging parent has made a distinction between disease and sickness. He realizes that disease, a pathologic state confined to the organism, is the sphere of the medical profession and can be treated by him or other appropriate medical personnel. Sickness, on the other hand, when viewed as a pathologic process that affects interpersonal relations of the person in the sick role and those with whom he interacts, can be treated by many outside the medical profession.

The best doctor for the aging parent has further realized that many so-called health problems, although they may derive from a physical condition, may not need a medical solution at all. Instead, changes in housing arrangements; modes of living; patterns of recreation; and relationships with family, friends, and the community, may be the treatment necessary. Similarly, many behavior problems that are labeled "mental health problems" may be problems of social adjustment.

Recognizing his own limitations, the ideal physician will not want to be the parent's only advisor in matters of health care. Many of the parent's health care concerns probably can be answered better through the knowledge and skills of individuals in other helping professions. When the physician does not realize this, the participants are told that they and their parents will have to decide to what extent they will permit his direction of their health care.

Many physicians use medication as a solution far more often than it is necessary, and many times they are negligent in checking carefully what other drugs their patients may be taking. The physician should be questioned about any medication he gives an elderly patient. The caretaking family member should understand what it is, its purpose, its side effects, its interaction with other drugs, what to do in case of reaction to the drug, and how long any medication is to continue.

It almost certainly will be necessary for the involved adult children to begin to read and develop an understanding of common physical, social, psychological problems of the elderly. They may be frustrated to see the extent of disagreement among the experts with regard to some issues, and perhaps it will comfort them to see the consensus in other matters. Whatever their feelings, however, their increased knowledge will give them greater confidence, prevent intimidation a little more, and help them judge better what to accept and what not to accept of the doctor's statements and actions in treating their parent.

Participants in the seminar are advised to begin to build a knowledge base that will enable them to feel comfortable when they disagree with the doctor. One example of an area of disagreement is nutrition, particularly if the caretaking family member is persuaded of the value of vitamin and mineral supplements generally, or of their use to treat particular problems. The participants are told that they may not find support in this area from the physician. Aside from familiarity with therapeutic diets for special health problems, few doctors know enough about nutrition to speak authoritatively. Yet, proper nutrition is one of the major concerns in the health care of the elderly. If the participants have questions about their parent's nutritional needs and they cannot find a doctor who is consciously making an effort to increase his knowledge in this area, then they are told to accept the fact that they may need to find help elsewhere and make decisions apart from the doctor's recommendations.

Finally, as one last example of consumer health care advice given to adults, there is the matter of the catch-all diagnosis of senility. My recommendation to the participants in the seminar is to *react* any time a doctor tells a parent that his or her condition is "just old age" or "to be expected" or "there is nothing that can be done about it." Dr Robert Butler has pointed out the widespread failure to diagnose and treat reversible brain syndrome and the many possible causes that are correctable and that can modify or reverse bizarre behavior in the elderly.[3]

Characteristics of the Family Caretakers

The adult sons and daughters of aging parents who are listening to the advice summarized in the preceding paragraphs are people in crisis situations. For many, the crisis involves deciding to what extent they should assume decision-making responsibilities that until now have belonged to their parents. My own inclination is to bend over backwards not to take aged adults' decision-making rights away from them before it is absolutely necessary, but when this point is reached it is a subject of concern. Assuming this responsibility is of such grave concern to the adult children that those professionals in an advising position need to be especially cognizant of the susceptibility of this adult to suggestions made by the "objective expert." This, it seems to me, makes it all the more imperative that those in the medical profession, who are often the ones in that crucial advising role, examine their own knowledge and consult with those outside their profession when the solutions needed are nonmedical.

The second most common characteristic of the adult who carries the responsibility for aging parents is that it is a daughter. Her lack of experience in being assertive makes it particularly difficult for her to question a doctor. A better grasp of the health condition of her aging parent and the supportive answers to her questions by a concerned and interested physician could go a long way toward helping to cope with the guilt feelings she is struggling with. The woman today is dealing with a far more complex set of factors than nonassertive sex-role socialization and guilt, of course, in coping with her parent's aging. Her involvement in the health care of her parent may be complicated by her own work and family responsibilities, geographical separation from parents, few siblings to assist, and so on.

Third, it seems to me that those who question and assume more personal responsibility in the health care of their elderly parents are precisely those individuals who can offer physicians a sense of time used more meaningfully in interactions with patients if they support these changes in patient behavior.

Options for the Physician

The current trends in the popular culture toward greater participation by consumers in their own medical care probably will not change. Physicians may resist these changes and may feel threatened by them, or they may use this increased interest and awareness as an opportunity to teach preventive health practices, to enhance cooperation with prescribed regimens, and to educate patients to bring certain problems to medical attention earlier, all of which is sure to improve their patients' health status.

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Blindness and hypoglycemia: growth hormone deficiency with septo-optic dysplasia

E. Anderson Clark, MD; Walter J. Meyer, III, MD

A 5½-year-old girl was evaluated because of blindness and recurrent hypoglycemia since birth. Her growth rate was 4.2 cm/year and height was below the third percentile. She was found to have growth hormone deficiency and septo-optic dysplasia. Growth hormone replacement therapy resulted in correction of hypoglycemia and in catch-up growth. An investigation of pituitary function should be included in the evaluation of any blind child with hypoglycemia.

The syndrome of hypoplasia of the optic discs and absence of the septum pellucidum was first described by De Morsier in 1956,[1] and hypopituitarism subsequently has been reported in association with the disorder.[2,3] This article emphasizes the importance of hypoglycemia as a feature of hypopituitarism in this syndrome.

Case Report

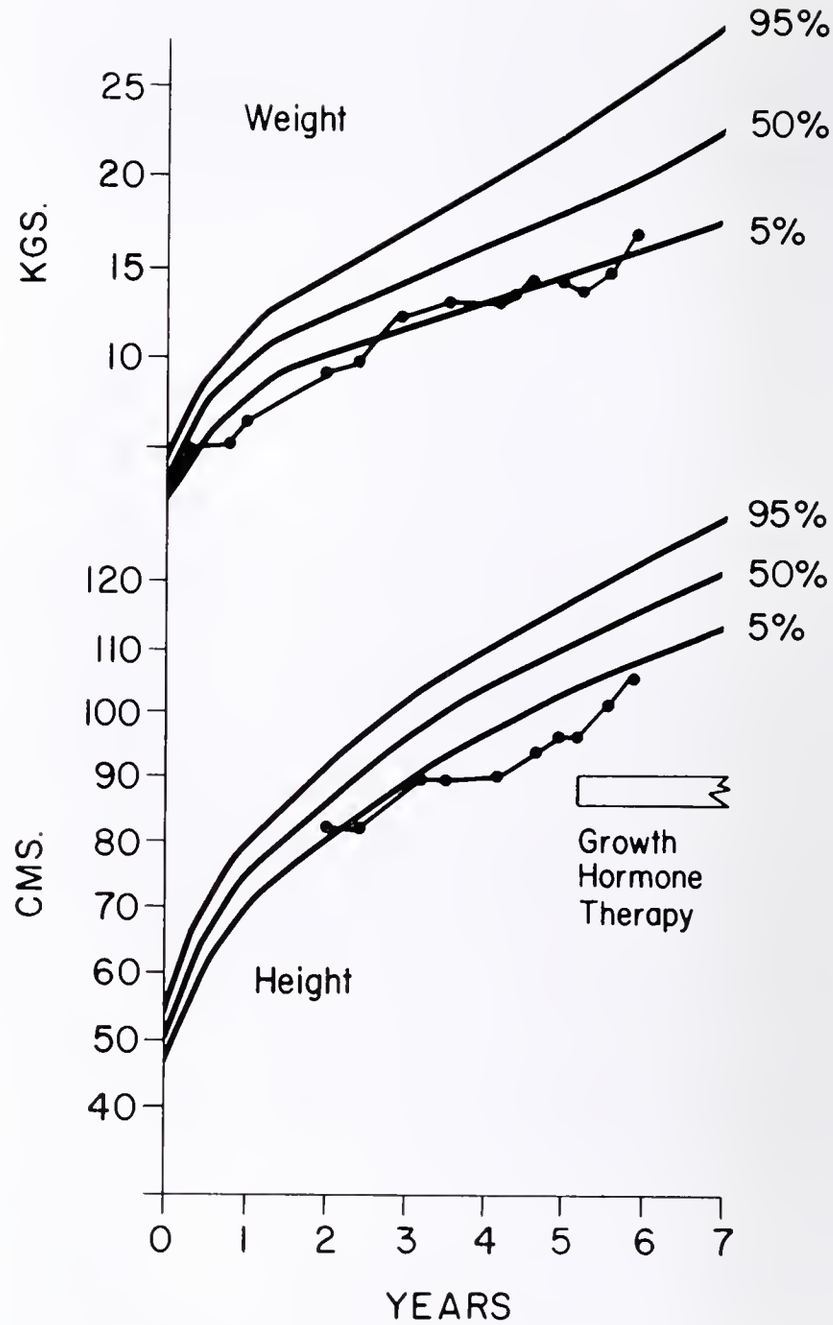
The patient, a white girl, was seen initially at age 5½ because of blindness, growth retardation, and intermitten episodes of hypoglycemia. She was the 3.5 kg (7 lb, 6 oz) product of a normal pregnancy of an 18-year-old primigravida. At 10 hours of age, she had a generalized seizure, and her blood glucose level was 12 mg/dl. She was treated with intravenous administration of glucose. During the next few days, jaundice and a morbilliform eruption developed, both of which resolved spontaneously. The patient was discharged at 12 days of age. At home, the infant was difficult to feed, lethargic, and vomited frequently. On physical examination at three months of age, she weighed 4.3 kg (9 lb, 4 oz) and was subsequently admitted to a hospital for evaluation of slow weight gain (Fig 1).

Hemogram; urinalysis; values for blood urea nitrogen, calcium, phosphorous, prothrombin time, thyroid function, sweat chloride, leucine tolerance, glucose tolerance; and roentgenographic studies of the chest and of the upper and lower gastrointestinal tracts performed during the hospitalization disclosed no abnormalities. Fasting blood glucose levels on several occasions ranged from 25 mg/dl to 62 mg/dl. The diagnosis of idiopathic hypoglycemia was made, and the patient was treated with a high protein, low carbohydrate diet. A short time later, the mother noted that her daughter was not following objects with her eyes. Ophthalmologic examination when the baby was 7 months of age showed small optic discs and probable blindness.

The patient was readmitted to the hospital at 9 months of age because of continued failure to thrive (Fig 1). Ophthalmologic evaluation revealed optic disc hypoplasia and total blindness.

At 2½ years of age, the patient had a grand mal seizure. Her blood glucose level at that time was 24 mg/dl, and she was treated with glucose intravenously. She had continued to have, at home, mild episodes of hypoglycemia (early morning spells of crying, dilated pupils, lethargy, and fine tremors, but no tonoclonic movement or loss of continence), which responded to oral administration of sucrose. The patient was subsequently referred to this center for evaluation of her endocrine status.

Physical examination revealed a small girl with a wandering gaze, who resisted all attempts at play and conversation. Height was 95 cm (< 3rd percentile); weight, 13.8 kg (< 5th percentile) (Fig 1); and head circumference, 49 cm (30th percentile). She had scanning nystagmus, pale fundi, and small optic discs (Fig 2). With the ex-

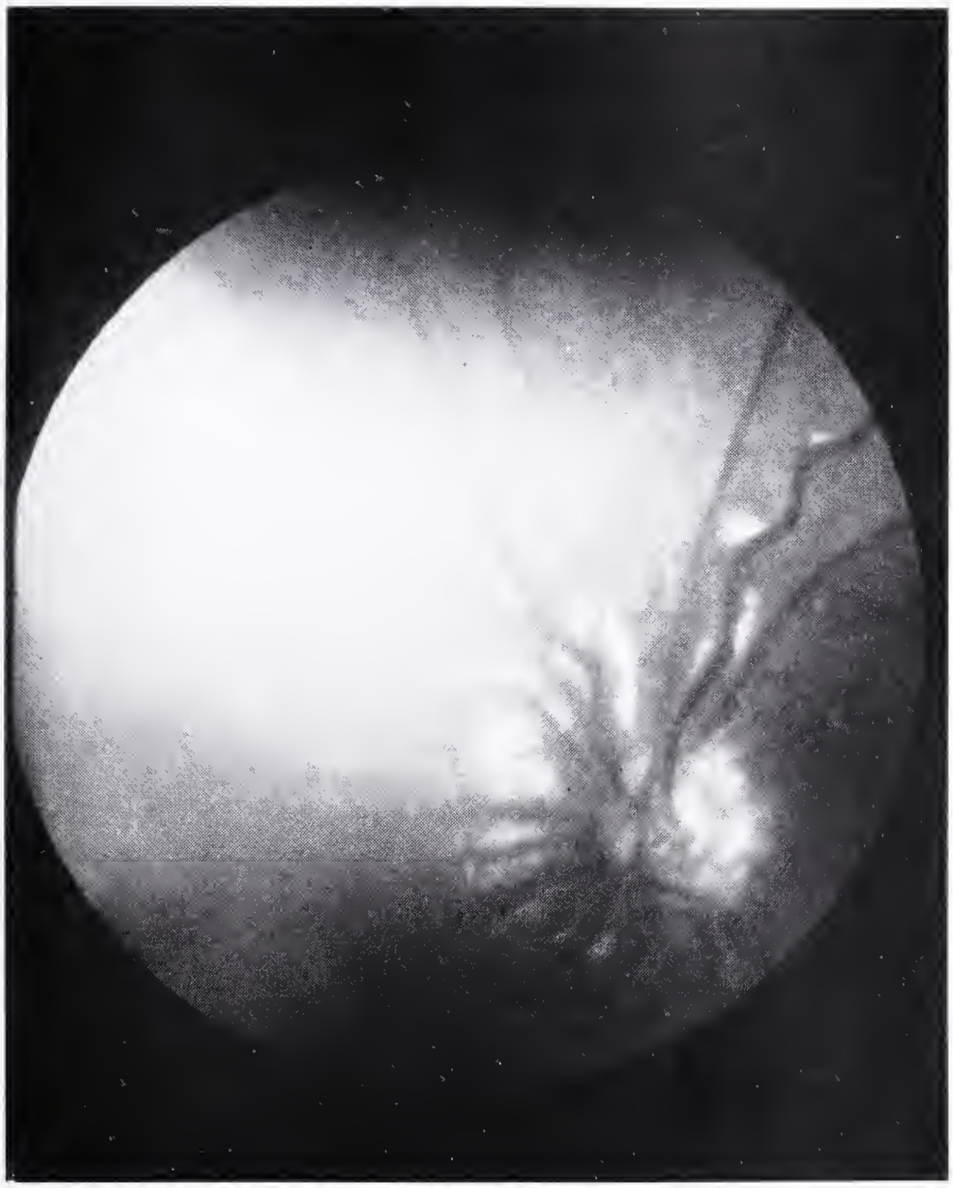


1. Growth chart of the patient shows an abnormal pretherapy growth rate with catch-up growth after growth hormone therapy was begun.

ception of her size and the ophthalmological findings, no physical abnormalities were noted.

Laboratory evaluation revealed the following values: hemoglobin, 10.8 gm/100 ml; hematocrit, 31.8%; white blood cell count, 9,400 with a normal differential; serum electrolytes, urinalysis, and blood urea nitrogen, normal. Her bone age was 3½ years, evaluated by the method of Greulich and Pyle.[4] During water and caloric deprivation, her urine specific gravity rose from 1.008 to 1.020, and her blood glucose level dropped from 73 mg/dl to 30 mg/dl at 21 hours. Her only symptom at that time was lethargy. Her serum growth hormone level was 0.8 ng/ml and her plasma cortisol level was 13.0 μg/dl. There was no change in the blood glucose value after an intramuscular injection of 1 mg of glucagon.

Plasma cortisol drawn at 8 AM and 10 PM were, respectively, 20.3 μg/dl and 10.9 μg/dl (normal circadian rhythm). There was no response to the oral Metopirone test: urinary 17-hydroxy corticoids were 2.7 mg/24 hours the day prior to, the day of, and the day after Metopirone administration. Plasma cortisol value (18.7 μg/dl)



2. Fundal photography (after injection with 25% sodium fluorescein) shows hypoplastic optic disc.

3. Growth hormone response.

	Growth Hormone (ng/ml)							
	Time (minutes)							
Stimulus	0	15	30	45	60	90	120	270
L-Dopa[9]	2.2			0.8	1.2	1.8	4.6	
Glucagon & propranolol[10]	4.6						5.2	4.0
Arginine[11]	2.6	0.9	1.0	2.4	4.0			
Insulin[12]	1.6			1.8	1.8			

did not increase in response to insulin-induced hypoglycemia (blood glucose, 16 mg/dl) and was 9.8 μg/dl at 45 minutes and 9.9 μg/dl at 60 minutes. Thyroid function was normal (TSH, 5.5 μM/ml, T_3-resin uptake, 28.8%; T_4, 6.8 μg/dl). Multiple stimulation tests for plasma growth hormone were carried out (Fig 3). The highest growth hormone value observed during the four stimulation tests was 5.2 ng/ml.

Radiographs of the chest, skull, and sella turcica were normal. A computerized tomographic tangential scan revealed small optic nerves, but was not helpful in demonstrating the presence or absence of the septum pellucidum. A pneumoencephalogram clearly demonstrated the absence of the septum pellucidum and partial absence of the corpus callosum.

Recently, the patient has been treated with human growth hormone (2 units every other day), provided by the National Institute of Arthritis, Metabolism and Digestive Diseases and the National Pituitary Agency of the University of Maryland. She has grown at a rate of 12.8 cm/year (Fig 1). Hypoglycemia has recurred only when more than 48 hours elapsed between growth hormone injections. Cortisol supplementation has been given only during times of fever or other physical stress.

Discussion

Blindness associated with hypoglycemia has been described in only a small number of situations, for example, craniopharyngioma, other suprasellar tumors and cysts, and septo-optic dysplasia. Septo-optic dysplasia is a congenital malformation of the prosencephalon. The associated hypoglycemia probably occurs because of the growth hormone deficiency, either alone or with other pituitary hormone deficiencies. Of the eight reported cases of septo-optic dysplasia in which growth hormone deficiency was documented, hypoglycemia was an associated problem in five.[5-8] Prolonged neonatal jaundice was also noted in several previously reported cases.[5,7] Whether the jaundice is secondary to hypopituitarism is unknown. In the patient reported here, the clinical picture included optic disc hypoplasia, absent septum pellucidum, nystagmus, short stature, delayed bone age, prolonged neonatal jaundice, isolated growth deficiency, and intermittent hypoglycemia. In addition to growth hormone deficiency, pituitary ACTH secretion was not completely normal; despite morning plasma cortisol concentrations greater than 15 μg/dl, the adrenal responses to Metopirone and hypoglycemia were not normal.

The evaluation of a blind child with symptoms of hypoglycemia should include a thorough investigation of pituitary functions and a consideration of the syndrome of septo-optic dysplasia. When this syndrome is diagnosed, therapy with human growth hormone should be considered in order to alleviate both the growth failure and hypoglycemia.

Acknowledgment

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Economic and political policies of the Texas medical profession in the Progressive Era

James G. Burrow, PhD

Members of the Texas Medical Association who convened for the 1900 annual session in Waco knew that their organization had behind it nearly a half century of political failures and frustrations. A prominent physician, A. B. Gardner, MD, of Belleville, told the 1899 session of the futility of appealing to the legislature for enactment of effective medical laws, declaring:

> We have sent committee after committee, and in all that time we have never accomplished anything, and have hardly been accorded a respectful hearing . . . . I think it is time for us to stop and let them run it to suit themselves. We are not lawyers, politicians or shop keepers, and have no influence with the voters, Governor or the legislators. Our self-respect dictates that we stop trying.[1]

Raising a similar complaint, but calling for a policy of immediate political action, Charles A. L. Reed, MD, president of the American Medical Association, told the 1901 St Paul session that "the American Medical Association, during the first fifty years of its existence, exerted relatively little influence upon legislation, either state or national."[2]

By 1910, leaders of the Texas profession, surveying the work of the TMA in the first decade, reflected no such pessimism. The TMA president enumerated six important legislative measures supported and secured by the profession.[3] At the end of the Progressive Era, the TMA Council on Legislation and Public Relations reported that the profession had secured the passage of every measure it advocated and the defeat of every bill it opposed in the last legislature.[4]

What accounts for the rise of the medical profession to a formidable position in Texas politics in the Progressive Era? How was it able to obtain in the first decade a new medical practice act, a board of health, a pure food and drugs act, and an anatomical law along with other measures when, in the preceding half century, it had gotten little more than a nearly worthless medical practice law? How did it meet the threat of rival healing groups? Why did it succeed in attacks on weak and fraudulent medical schools that had long resisted its pressure, and protect the public from a class of the most incompetent physicians and the profession from the poverty that their competition produced? How did it attempt to increase professional income and resist the advance of contract practice through which laymen-directed intermediate organizations sought economic exploitation of the medical profession?

Public Relations Program

Behind the Texas profession's political struggles is probably the most spectacular public relations program that any US professional or business organization had ever launched. Five years before the term "public relations" seems to have been used by any person of prominence, and long before it had been precisely defined, the TMA staked its lonely claim on this new communications frontier. Writers on the subject have cited Ivy Ledbetter Lee, the Georgia-born Princeton graduate, New York journalist, and publicity agent, as the first public relations expert. Lee tried to remove the tarnished public image of the anthracite coal mine operators, the Pennsylvania Railroad, and the Rockefeller family before closing his career as an apologist and publicist for Hitler in the United States at an annual salary of $25,000.[5-8]

Yet, three years before Lee began his

Editor's Note: This article was prepared at the request of Chester R. Burns, MD, Institute for the Medical Humanities, The University of Texas Medical Branch, Galveston, as part of a series of articles expressing views on medical history in Texas. Dr. Burns served as TMA's historian to acknowledge the bicentennial in 1976. The authors' views represent their own perspectives on medical history

work, a medical leader opened his public relations program at the TMA San Antonio meeting. When Joseph N. McCormack, MD, of Bowling Green, Ky, official organizer of the American Medical Association, carried his crusade to the public at San Antonio in 1903, he became the rightful if still unrecognized heir to the title of the nation's first public relations expert. If, as Edward L. Bernays and Eric F. Goldman observe, the term "public relations" differs from 'publicity" in being a two-way street in which an expert interprets his client to the public and the public to his client, then neither George Whitefield, who had the first press agent in Colonial America, nor Ivy Lee, whom Bernays calls the first modern public relations expert, deserves credit for opening the field.[9,5,10,11] Nor should the fact that McCormack had as his client a profession to which he belonged forfeit his title to primacy.

After accepting the position of official organizer in 1900, the affable and persuasive McCormack often had addressed public gatherings and had found a few laymen in his audiences when he spoke over the nation to state and local medical groups and societies, attempting to imbue them with new spirit and life. Not until the San Antonio session of the TMA in 1903 did he begin his new strategy of bringing together the profession and the public.

He listed among those present "members of the judiciary, the prosecuting attorney, legislators, and many other representative laymen." He found these public leaders unaware of the deficiencies in their public health regulations but he praised their interest in the health issues he discussed and in his suggestions for reform. "After the San Antonio meeting," he said, "the public was cordially embraced in every invitation. Lawyers, ministers, teachers, legislators, farmers, businessmen, city and county officials, and especially the women, were urged to attend and to participate in the discussions, and with most satisfactory results."[9] He added that he had found it easy to convince any intelligent layman that his medical profession and his own physician held no interest which he did not share, and that upon the competency and prosperity of the profession depended the safety and well-being of his family. Bearing down on the potential political influence of physicians, McCormack maintained that "nearly every vote of the legislature can be controlled by education, moral suasion, and home influence in advance. . . ."[9]

McCormack's work encompassed the nation and he probably devoted as much attention to Texas as to any other state. Late in 1905, he traveled from El Paso to Paris and from Mineral Wells to Beaumont, addressing audiences in 21 cities in 26 days. The following year he publicized the work of the TMA in the AMA's journal, and in 1907, appeared in Austin to help struggling TMA leaders steer a medical practice law through the legislature. Then in 1911, he traveled through Texas again addressing laymen and doctors in several cities.[9,12-14]

The importance of McCormack's public relations crusade cannot be measured, but it undoubtedly contributed greatly to the growing political power of the profession. Speaking on such subjects as "Things About Doctors Which Doctors and Other People Ought To Know" and "The Gospel of Health and Long Life," he did much to establish an image of the profession in the public mind comparable to the esteem which he believed patients usually held for their personal physicians. He also strengthened the TMA position by arguing convincingly that TMA policies also best served the public's interest.*

Political Involvement

The TMA not only began a public relations crusade that reached over the entire nation but simultaneously began a second major task. With the assistance of McCormack and at least five AMA solicitors who worked

*The first of these addresses, reproduced from the editor's notes, appears in the *Texas State Journal of Medicine* 1:225, 1906, and seems to have been the principal address delivered on the tour of 1905. Titles of some of McCormack's other addresses appear in Chapter 2 of *Organized Medicine in the Progressive Era: The Movement Toward Monopoly*, by James G. Burrow, PhD.

throughout Texas, the TMA launched a major enlistment drive. With the AMA's support, the TMA set up political machinery for the achievement of its goals. The state association's membership that numbered only 297 in 1899 climbed to 2,415 one year after the 1903 reorganization, and reached its peak in the Progressive Era with an enrollment of 3,574 in 1915. In 1904, the Texas association enrolled more than 49% of the state's regular physicians, and with the exception of the Massachusetts society, had the largest enrollment percentage of any comparable organization in any state.[1,15,16] In 1905, it began to bring its scattered membership together with the establishment of a journal which went far toward molding the views of a growing number of medical recruits.

By 1907, the Texas society had 46 physicians whose names appeared on the AMA's National Auxiliary Congressional Committee, an organization created by the AMA to exert pressure on Congress for the adoption of legislation favored by the AMA. While this committee concentrated on federal legislation, it also enlarged its operations to press the interests of the profession on the state legislatures. The Texas association, like many others, also had a State Auxiliary Legislative Committee that had 82 members in 1907, and which took over state functions formerly performed by the congressional committee. The TMA had its own legislative committee that kept the profession informed on political activities of the state organization and defended the interests of the profession at legislative hearings. The latter two committees did not hesitate to appeal to physicians to converge on Austin when some important medical issue was at stake or to persuade the personal physicians of recalcitrant legislators to use their influence upon them.[17,12,18-21]

Hard and Soft Issues

The TMA framed its economic and political policies around improvement of public relations, organization recruitment, and creation of effective mechanisms for wielding political power. When Richard Hofstadter referred to what he called the "hard" and "soft" sides of the farmers' politics in the late 19th and early 20th century, he employed terminology equally applicable in describing the politics of the Texas medical profession in the Progressive Era.[22] The soft side of the profession's politics appeared when it spoke on issues that clearly linked public interest with or above its own. Legislation regulating food and drugs, establishing boards of health, and providing for the collection of vital statistics were within this realm. The profession was most convincing, of course, when it expressed its views on these issues.

The hard side of the profession's politics appeared when it formulated political and economic policies which seemed to have only an indirect relationship to general welfare. It is hardly surprising that when the medical profession adopted an aggressive political strategy it brought upon itself such epithets as "medical trust," "trade union," and "medical guild." Competing medical sects and patent medicine interests found trust-like designs in anything the regular profession did, but the outcries became louder and more widespread as the regulars pressed hard-side issues.†

First, the profession sought to control the realm of medical practice and reduce the competition from its rivals. The old combative strategy had failed to eliminate medical sects. The eclectic movement, emphasizing botanical remedies, and the homeopathic, the small dose and law of similars, had survived through decades of struggle before securing separate licensing boards in 1901.

To meet this threat, the Texas profession adopted the subtle strategy of association, assimilation, and absorption. The profession advanced in its goals by prevailing on a reluctant legislature to enact the medical practice law of 1907. This law met the demands of the TMA in creating one examin-

†For attacks on the AMA when it pushed the soft-side federal health department issue, see Burrow (12, pp 99-101). This opposition grew partly out of the fact that it was a national department rather than a state agency. Evidence presented by the writer in his recently published study indicates far greater protests to hard-side issues.

ing board rather than three. Even though it did not allow majority representation for the regular profession on the 11-member board, it served as an effective instrument to weaken medical sects. The law required applicants for examination to demonstrate competence in 11 areas of instruction, ignoring the disputed realm of therapeutics.

Furthermore, as the regular profession insisted, the law denied Christian Scientists exemption from its application and brought osteopaths and physio-medicals under its coverage. The law showed the latitude allowed the governor who appointed five regular physicians, two eclectics, two homeopaths, one osteopath, and one of physio-medical persuasion to the first board.[23,24]

The concessions that the regular profession made in securing this measure were outmatched considerably by its gains. The new law, in raising licensing requirements, made highly unlikely the establishment of any eclectic and homeopathic outlets in Texas. It gave the regular profession new and substantial control over the licensing of eclectic and homeopathic candidates. It endowed the profession with power to combat the threat of osteopathy and provided a definition of medical practice broad enough to entrap almost anyone attempting to heal for pay. The law gave regulars a chance to discount and discredit officially the whole field of therapeutics, where eclectics and homeopathic systems claimed their greatest strength, and in which the regular profession admittedly had made practically no progress.[25] For the time at least, the weakening of sectarian systems did not necessarily imply the advance of scientific medicine.‡

With the passage of the Medical Practice Act of 1907, the Texas profession had obtained, through statute, advantages which it could not secure through its own efforts. Legal measures did not suffice, however, when it sought its second goal—direct control over physician supply.

Unlike some academic administrators of the 1970s who rejoice in the teacher surplus that has flooded the market with desperate recruits often forced to sacrifice the profession's highest ethics, medical leaders of Texas understood how the enormous physician surplus threatened all professional values.§ The medical profession sought to destroy fraudulent medical schools and control entrance and exit requirements of others. For the latter task it drew assistance from the AMA which launched a nationwide crusade for the reform of medical education, and from the Carnegie Foundation for the Advancement of Teaching which conducted a similar drive.

Fraudulent Schools

The Texas association or allied organizations in the state needed no outside help, however, in the fight against fraudulent schools. In 1901, Walter Shropshire, MD, of Yoakum found ten diploma mills represented by some 500 medical licenses which he and two other physicians investigated. They had 1,000 circular letters printed exposing these institutions and several thousand reprints made of newspaper articles which had publicized the fakery of the Independent Medical College of Chicago that evidently had a disturbing number of alumni practicing in Texas.

The New York Medical College of San Antonio, chartered by the legislature in 1889, fell under attack by the West Texas Medical Association. This school, founded by J. D. Forest, who taught ophthalmology, a subject which he could not spell, also included on its faculty his wife, who taught female diseases, his brother, who taught surgery, and his 6-year-old son, who taught pediatrics. The West Texas Medical Association collected $50 to enroll a Negro porter in San Antonio, who received his

‡The "therapeutic nihilism" of the regular profession is treated in Burrow (25, pp 120-21).

§For the strategy of the AMA in raising educational standards, see Burrow (12, pp 33-36), and for a contemporary educator who apparently finds in the teacher glut nothing more than an opportunity to improve instruction, see summary of address made by Johnny Clark, Jr, president of the Texas State Teachers Association, to District 14 of the association in Abilene, Tex in James Boyett, "Teacher Surplus Deemed Healthy," *Abilene Reporter-News* (evening edition), Oct 15, 1973, p 1.

diploma in 17 days, signed by one member of the faculty who had taken the accelerated course and finished in 12.[26,27] The TMA attacked the Gate City Medical College when, in flight from Arkansas justice, it made hasty transit across the street to Texarkana, Tex. News of chaos in medical education traveled far beyond the state when the *Pennsylvania Medical Journal* noted the existence of a college teaching "Quadopathy" at Glen Rose in 1907.[28-30]

The TMA did not confine its work simply to attacks on fraudulent schools. Drawn into the orbit of the AMA, it supported the survey of Texas schools which the AMA Council on Medical Education conducted in February, 1907, as part of a nationwide inspection. John T. Moore, MD, who represented the TMA at meetings of the AMA Council on Medical Education, followed this inspection with others, adopting the council's ten-point standard in the grading process. He told the 1910 Dallas session that three of the seven schools existing when he made his first inspection had closed but that the four which remained were still too many. He listed the survivors as the medical department of the University of Texas, and the medical departments of Fort Worth University, Southwestern University, and Baylor.[28,31]

How many are too many and what is the basis for judgment? Does the number depend on institutional competence, on public need, or on both? What other factors, if any, are involved? Whatever the answer, the AMA and the TMA established a pattern of control that would have serious bearing on the future physician supply when total national medical school enrollment dropped nearly 50% between 1904 and 1917.[32]

Again, the hard side of the profession's strategy appears. Flexner, in his famous report on medical education, began his survey believing that, with few exceptions, medical education should be conducted only by state universities. He gathered statistics that seemed to support his views and in summarizing impressions gained or confirmed by his Texas inspection he wrote:

> There is no indication on the face of things that any of the three inferior schools can live through the dry period to the opportunities of the future. Their enrollment is small; and the state is badly overcrowded with just the kind of doctors that they are engaged in producing. Would the loopholes in the present state standard be stopped up, all three would quickly disappear.[33]

One benefits from hindsight, of course, in raising the question, for instance, of whether the medical department of Baylor University should have survived. However, it required no hindsight to demonstrate that Flexner made no effort to consider seriously the potential of Dallas for supporting the school or the broad denominational resources upon which it might draw if Baylor University accepted responsibility for its financial support. Deprived of adequate guidance from the national organization, the TMA never met some of the issues that the matter of physician supply involved.

When the Texas State Board of Medical Examiners announced in June 1913 that it would no longer accept candidates from institutions that fell below the AMA's classification of "A" and "B" schools, the power of the regular profession on the medical board became clear indeed. Yet by some obscure means, two of the schools in Fort Worth and Dallas got a reclassification from "C" to "B" status in less than one year after the ruling was made.[1,34] This ruling virtually guaranteed the destruction of homeopathy and eclecticism, already in decline, and it seems that only the balanced rivalries of the two remaining institutions prevented their collapse.

Physician Income

The rapid inflation of the early 20th century pushed the profession toward a third of its hard-side goals. It could not await the result of its efforts to reduce physician supply before moving in other ways to improve its income. An inflation of approximately 30% between 1898 and 1914 greatly reduced the real earnings of doctors whose patient load had also diminished with the advance of preventive medicine.[35] In an era when industry performed astonishing feats in increasing and standardizing

prices, physicians, not surprisingly, found methods designed to provide a measure of economic security. Generally, they assumed that the public needed no part in the price-fixing process.

Like doctors in other states, Texas physicians began to adopt or upgrade fee schedules and their local organizational growth accelerated the process. There is little information, however, regarding the scope of their efforts. In 1907, the *Texas State Journal of Medicine* publicized standard fees in 89 cities and counties, but only after the attorney general had ruled that the adoption of fee schedules did not violate the state's antitrust law. Statistics supplied in this report give no reason to assume that the schedules had operated long enough to provide a substantial rise in income. In 79 counties, 51% of the physicians reported that they had barely made a living, while in towns and cities not more than 10 to 20% reported more than marginal incomes. In different forms, fee schedules remained a problem throughout the Progressive Era, and in 1917, one prominent physician complained of variations in fees between neighboring towns.[15,36,37]

Contract Practice

Finally, the profession pressed what appeared as a hard-side policy when it confronted new and old issues raised by contract practice. Rooted in the nation's colonial past, this form of medical practice took on growing popularity in the late 19th century. In remote lumbering and mining communities among railroad employees and in northern and eastern cities among immigrant groups, contract practice had a special appeal. It offered full medical service for workmen, and usually for their families, at minimal costs. The traditional fee for service system had never promised so much.✣

The TMA recognized the necessity of contract practice under exceptional conditions. It raised no objection to its employment by railroads or by remote East Texas lumber companies. These companies though, as Prof Ralph A. Smith has observed, spread rapidly, and in such counties as San Augustine and Jasper, employed many hundreds of workers. Their growth and the friction they raised among physicians bidding for contracts represented increasing threats to the profession.[38]

Texas physicians also found that contract practice had spread beyond conventional bounds. By the middle of the second decade such schemes had reached their cities. A special TMA committee cited the programs launched by two companies in Dallas and by the National Medical Service Insurance Company of Waco.[39] Would the Texas association accept the extension of contract practice? Would it ignore or resist it or attempt to reform the system by trying to remove its abuses?

In 1913, the AMA Judicial Council maintained that many families could secure adequate medical care only through some type of fraternal plan and suggested their potential usefulness if properly controlled. Three years later a TMA council denounced these commercial health insurance schemes. It easily showed that they stirred up strife within the profession, introduced an intermediate agent, subjected physicians to the domination of laymen who exploited their services, and proposed an indefinite amount of service for a definite amount of pay. It declared that these schemes would reduce the position of physicians to that of peons, and that they bore little relationship to the simple plans that companies established for their employees in remote outposts.

The TMA readily accepted the council's resolution "that such insurance is unavoidably incompatible with the purposes and ethics of the State Medical Association of Texas, and is therefore unethical."[39-41] The TMA appeared to go no farther than to accept the containment principle which would confine contract practice to isolated areas.

Experience with the havoc wrought by the spread of contract practice in the Progressive Era left the profession in Texas and in much of the nation with bitter mem-

✣For a general account of the rise of contract practice, see Burrow (12, pp 173-176).

ories not quickly forgotten. This experience had an important influence in shaping professional attitudes toward social policies and legislation in the prosperity and depression decades (1921-1941). The profession looked with great skepticism on innovations in areas of medical care organization and payment and detected objectionable features of contract practice in several measures proposed in the postwar readjustment and depression crisis. It developed a growing fear of political influence in medical service as governmental agencies appeared increasingly in third-party roles.

Furthermore, spokesmen for organized medicine usually found little more than a revival of the worst features of contract practice in the growth of voluntary plans which hospitals and groups launched at the onset of the depression.[12, pp 178-180, 183-184] Many schemes justified this view, but medical leadership failed to see in other plans the beginnings of a nationwide voluntary insurance movement that later it would vigorously support. A more judicious professional approach to the voluntary insurance movement would have greatly assisted its development in the early depression years.

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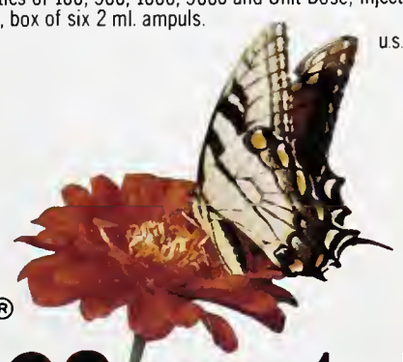

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Sodium nitroprusside today: a review of its clinical applications and a discussion of problems associated with its use

Jeremy J. Hammond, MB, BS

Introduction

The pharmacological actions of sodium nitroprusside were first described in 1886 by Hermann.[1] In 1928, Johnson proposed that the hypotensive effect of sodium nitroprusside, when administered intravenously, was due to direct action of the nitroso group on smooth muscle of the blood vessel walls, causing direct vasodilation.[2] The drug was ignored until Page described its use in hypertensive crises and detailed its cardiovascular actions.[3,4] Use of the agent remained limited until recent years because of the lack of a standard preparation. Since the production of such a preparation in 1974, clinical interest has grown rapidly. Investigators have described the use of sodium nitroprusside in hypertensive crises,[5,6] in the treatment of acute myocardial infarction,[7] and in congestive heart failure,[8] but little emphasis has been placed on the difficulties encountered with its use.

This review will discuss the biochemical and pharmacological properties of sodium nitroprusside and its major clinical applications. The problems of its practical usage will be addressed with particular reference to new techniques that facilitate the use of this agent.

Chemistry

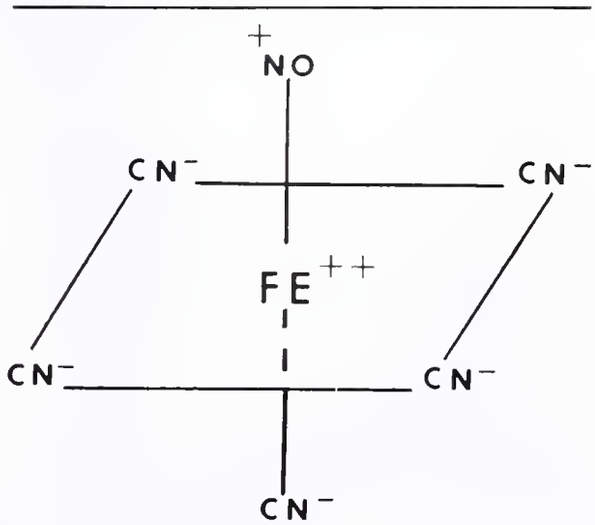
Sodium nitroferricyanide dihydrate (sodium nitroprusside), $Na_2Fe(CN)_5NO{\cdot}2H_2O$, is prepared by combining a ferricyanide salt (sodium or potassium) with nitric acid[9] (Fig 1). The crystals are transparent ruby red and dissolve to form a brown solution in water. The aqueous solution is unstable in the light. Ferric ion decomposes to ferrous, causing the solution to change from brown to blue.[6]

Pharmacological Actions

Sodium nitroprusside acts directly on blood vessel walls and causes peripheral vasodilation and reduced peripheral resistance.[2-4,6] There is no evidence to suggest that the effects of sodium nitroprusside are due to actions on the central nervous or autonomic nervous systems.[9] The active component of the agent is the free nitroprusside radical or nitroso moiety.[3,4] The evanescent nature of the drug's actions is due to the conversion of the active radical to cyanogen, which in turn is metabolized by the hepatic enzyme rhodanase to thiocyanate. Some of the thiocyanate is oxidized to cyanide.[6] The drug appears to act specifically on vascular smooth muscle.[9]

Reduction in arterial pressure and total peripheral resistance have been reported

1. Sodium nitroprusside is prepared by combining a ferricyanide salt with nitric acid.



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For this article, Dr. Hammond has won the *Texas Medicine* award for outstanding scientific writing by a medical student, resident, or fellow under age 35.

by almost all investigators. The early studies of Johnson and Page and associates documented little change in pulse rate or other parameters of cardiac function.[2,4] Human studies reveal that the overall effect of sodium nitroprusside varies, but characteristically, a small decrease in cardiac output and rise in pulse rate occur, if the cardiac output is normal before infusion of the agent.[10,11] In patients who have a reduced cardiac output induced by anesthesia, nitroprusside acts to restore the cardiac output towards normal.[12,13] These studies suggest that the effects of sodium nitroprusside on myocardial performance are dependent on the pre-existing state of function and are related to the reduction in peripheral resistance and venous tone, altering afterload and preload, respectively.[9] This appears to explain the improvement in cardiac performance when sodium nitroprusside has been used in states of reduced cardiac output.[7,9]

In contrast, animal studies reveal a significant increase in cardiac output associated with a fall in peripheral resistance.[14,15] In dogs, an increase in the first derivative of maximum aortic pressure (aortic dP/dt max) has been reported,[16] but Cohn has pointed out the potential error involved in assuming that this observation indicates a problem in the clinical application of the agent in humans.[17]

Sodium nitroprusside also has been reported to be a dilator of the renal circulation[6] and a direct coronary vasodilator.[18] Oral administration does not produce the fall in blood pressure that is caused by intravenous administration.[4]

Toxicity

Acute toxicity with excessive doses is due to metabolic depression. Clinical features are trembling, labored respirations, vomiting, rigidity and convulsions.[9] In normal use there is almost no incidence of toxic effects in the short term.[6] Massive doses, 3,900 mg/21 days, have produced hypothyroidism associated with elevated thiocyanate levels. Hypothyroidism was reversed when the agent was withdrawn.[19] Serum thiocyanate levels should be measured if toxicity is a concern. Chronic toxicity symptoms include fatigue, nausea, and anorexia. A serum thiocyanate level of 10 mg/100 ml generally is considered toxic,[20] but symptoms of toxicity may occur at lower levels. Thiocyanate is excreted via the kidney[9] and has a half-life of one week,[4] so caution must be exercised in patients with renal dysfunction. Peritoneal dialysis effectively lowers plasma levels.[9]

Clinical Uses

Hypertensive Crisis

Sodium nitroprusside has been used successfully in the treatment of hypertensive crises.[3-5,9] The crisis situation usually constitutes a failure of medical management[21] and may be caused by such entities as malignant and accelerated hypertension, hypertensive encephalopathy, pheochromocytoma, or monoamine oxidase induced hypertension. Other causes include hypertension complicated by hemorrhagic or thrombotic strokes, cerebrovascular insufficiency, acute left ventricular failure, bleeding, and acute aortic dissection.[21,22] These medical emergencies demand prompt treatment[23] and the properties of intravenous administration, rapidity of onset, high potency, and immediate reversibility make sodium nitroprusside an ideal theoretical choice. The agent has been used effectively in hypertensive encephalopathy,[4,20,24] pheochromocytoma,[25] intracerebral or subarachnoid hemorrhage,[20] burns,[20] and drug-induced hypertension.[25]

Direct dilation of arteriolar resistance vessels and venous capacitance vessels contrasts with the properties of other vasodilators, such as hydralazine and diazoxide, which dilate only arterioles and are associ-

ated with a significant increase in cardiac output.[26] Sodium nitroprusside does not increase cardiac output[11] because peripheral resistance falls without venous return increasing.[4] This is beneficial in hypertension associated with unstable angina, myocardial infarction, or left ventricular failure.

Controlled reduction of blood pressure in the treatment of dissecting aortic aneurysm was described by Palmer and associates in 1965.[27] Most experience has been gained using trimethaphan, but nitroprusside has been used with success[5] and has been advocated as the drug of choice.[9]

Two possible problems with the use of sodium nitroprusside in this condition have been reported. Palmer and Lasseter[16] felt that the combination of nitroprusside and propranolol was associated with a worsening of dissection in two cases of dissecting aneurysm. They reported experiments on seven dogs showing an increase in the first derivative of maximum aortic pressure (aortic dP/dt max), suggesting that this mechanism may be harmful. There are significant hemodynamic differences between humans and dogs in the response to sodium nitroprusside, with dogs experiencing a marked increase in cardiac output. To condemn an agent that has much theoretical appeal and demonstrated usefulness on so little evidence appears premature.[17]

Several reports have indicated that sodium nitroprusside may inhibit platelet aggregation.[28-30] The single in vivo study involved three patients and bleeding times were not recorded, although nitroprusside was claimed to inhibit platelet responses to adenosine diphosphate, epinephrine, and collagen.

We are studying the problem on our patients receiving sodium nitroprusside, in a prospective manner, in collaboration with our hematology division. We have not found significant alteration in the bleeding time associated with nitroprusside administration. Several patients had abnormal bleeding times before commencement of nitroprusside, usually due to aspirin ingestion.

In hypertensive crises, we regard sodium nitroprusside as a valuable and effective agent if used with appropriate care.[31]

Hypotensive Anesthesia

Sodium nitroprusside has been established as a useful means to induce controlled hypotension during anesthesia. The surgical procedures in which it has been used include nephrectomy, cystectomy, prostatectomy, head and neck surgery, middle ear surgery, urological and orthopedic surgery, and pheochromocytoma removal.[6] The doses of nitroprusside used in these situations often are large and reports concerning toxicity have been published.[32,33] It has been suggested that severe systemic acidosis indicates toxicity.[33]

Cardiac Disease

Following the work of Franciosa and associates,[7] Chatterjee and associates,[34] and Guiha and associates,[8] there has been considerable interest in the use of sodium nitroprusside in acute and chronic congestive heart failure, in the management of acute myocardial infarction to limit "infarct size," and in the treatment of valvular heart disease with congestive heart failure.

Left ventricular function is determined principally by preload, afterload, the state of contractility, and the presence or absence of asynergy.[35] Ventricular afterload is governed by impedance to ventricular ejection and arterial blood pressure, which in turn is dependent on peripheral vascular resistance and cardiac output.[36] Congestive heart failure usually is associated with a decrease in cardiac output and an increase in peripheral vascular resistance.[37] Afterload is therefore high and stroke volume further depressed.

In both acute and chronic congestive heart failure, conventional therapy is directed toward preload reduction and reduction in pulmonary vascular congestion and

inotropic stimulation. The use of nitroprusside to reduce impedance to left ventricular ejection and therefore afterload, has added a new dimension to the therapy of these conditions.[7,8,38,39] Reduction of afterload enhances myocardial fiber shortening and causes decreased left ventricular end systolic volume and increased stroke volume. Pulmonary capillary wedge pressure characteristically is reduced. Even in relatively hypotensive patients, mean arterial pressure does not fall significantly because the improvement in cardiac output tends to counterbalance the fall in peripheral resistance.[36] In valvular heart disease, sodium nitroprusside is useful in mitral regurgitation and aortic regurgitation,[40] and probably in mitral stenosis with associated systemic hypertension.[41] When used immediately following cardiac surgery, nitroprusside has been reported to increase cardiac output.[42]

A natural extension of this work has been the use of oral vasodilators in the long-term management of chronic congestive heart failure. Agents that have been effective include nitrates,[43] phenoxybenzamine,[43] minoxidil,[44] and hydralazine.[44] It appears that chronic vasodilator therapy will have a place in the management of this condition.

There has been much interest in applying the pharmacologic properties of sodium nitroprusside to improve the prognosis in acute myocardial infarction.[45] Chatterjee and associates[46] demonstrated a short-term survival of 56% of 43 patients with severe pump failure treated with nitroprusside and phentolamine, but the two-year survival rate was only 28%. Diastolic augmentation by external counterpulsation combined with sodium nitroprusside infusion may be of benefit.[39] Sodium nitroprusside also has acted as a direct coronary vasodilator in man,[18] and reduced S-T segment elevation in acute myocardial infarction.[47]

Therapy combined with dopamine and sodium nitroprusside has increased cardiac output more than nitroprusside alone in patients with cardiomyopathy or acute myocardial infarction. The combination also has benefitted patients with depressed left ventricular function following coronary revascularization.[48] Further attempts to improve coronary diastolic perfusion include the combination of nitroprusside and intra-aortic balloon pumping.[48] Despite sodium nitroprusside's demonstrated beneficial hemodynamic effects, the fall in coronary perfusion pressure may increase myocardial ischemia.[36]

Excessive fall in blood pressure may be associated with the extension of myocardial infarction or development of infarction in a previously jeopardized area. In some patients, myocardial infarction size has increased following nitroprusside administration, as judged by a computer's prediction of the expected area of damage.[49]

Sodium nitroprusside appears to be a useful therapy in both acute and chronic refractory heart failure. However, its role in the modification of the course of myocardial infarction or limitation of myocardial infarction size has not been determined.

Other Uses

Sodium nitroprusside has been used to control severe hypertension in children,[50] to lower blood pressure during renal angiography,[6] and to treat systemic lactic acidosis.[51]

Dosage and Administration

Sodium nitroprusside is administered by intravenous infusion. A vial of 50 mg usually is reconstituted in 500 ml of fluid, such as 5% dextrose, giving a concentration of 100 μg/ml. The infusion is controlled by an infusion pump for greater accuracy. The dosage required to produce a satisfactory response varies depending on the underlying condition and the level of blood pressure desired. Doses vary from 15 to 800 μg/min.[6] We prefer to express dos-

age schedules in the terms of microgram/kilogram/minute and have used doses ranging from 0.5 to 8.0 μg/kg/min.

The problems associated with the use of sodium nitroprusside are essentially practical. The features of intravenous administration (rapidity of onset, high potency, and immediate reversibility) which are cited to be advantages, also lead to the main problems encountered with its usage. Fall in blood pressure may be induced too quickly,[5] blood pressure may fall too low, or wide fluctuations may result from small changes in infusion rate.[6] Control often is suboptimal with wide variations in blood pressure occurring within a few minutes. Constant medical and nursing care are required to monitor blood pressure and infusion rate, and this is not practical in all hospitals. For these reasons, many clinicians have been reluctant to administer sodium nitroprusside, and its use is limited to larger centers.

New Techniques of Administration

In an attempt to overcome the problems associated with the use of sodium nitroprusside, we have used "closed loop" computer control to administer the agent.[52] The system allows a measured parameter (blood pressure) to provide a feedback to control the infusion rate. A more detailed report of this study is in press,[31] and only a summary of the mode of operation and efficacy will be presented.

A bedside, disk-based computer system in the coronary care area is employed. The computer program for the closed loop infusion of sodium nitroprusside operates from the measurement of mean arterial blood pressure (monitored by indwelling arterial line). The mean arterial pressure is sampled by the computer every two minutes and compared to a designated level or "set point" which has been previously specified (usually 110 mm Hg). The computer alters the infusion rate or stops the infusion according to specific patterns, depending on whether the mean arterial pressure is too high or too low. If the mean arterial pressure is within ±10 mm Hg of the set point, no alteration in infusion rate occurs.

The computer-controlled system has been used in 12 cases of hypertensive crisis with pre-treatment blood pressures varying from 166/120 mm Hg to 250/135 mm Hg. In each case, the sodium nitroprusside was commenced by manual infusion at low rate, the response observed, and the computer controlled infusion started. In all cases, the computer effectively reduced blood pressure to the desired level. The time taken to lower mean arterial pressure to within ±10 mm Hg of the set point averaged 44 minutes (range 12 to 66 minutes). The fall in blood pressure occurred gradually, and rapid falls or swings were avoided.

Following reduction of blood pressure, the computer maintains the mean arterial pressure within ±10 mm Hg of the set point. Arterial pressure has been maintained between the ±10 mm Hg limits for an average of 75% of the time (range 56 to 86%). Arterial pressure has been maintained between ±15 mm Hg (including the areas of fine control) for an average of 88% of the time (range 78 to 96%) and, between ±20 mm Hg for an average of 94% of the time (range 82 to 99%).

For comparison, four patients treated by manually controlled infusion of sodium nitroprusside were studied. Control of infusion rate was maintained by medical or nursing staff with titration of infusion against blood pressure. The mean arterial pressure was within the limits 100 ±10 mm Hg an average of 22% of the time (range 4 to 37%); within 100 ±15 mm Hg an average of 32% (range 9 to 53%); and within 100 ±20 mm Hg an average of 49% (range 34 to 69%). A comparison between the control and computer-controlled groups analyzed the percentage of time the

mean arterial pressure was maintained within the three sets of limits. The comparison revealed a significance of $P < 0.001$ (Student's T-test) at each of the three limits.

The closed loop system also has been helpful in simplifying the transition to oral medications. Following control of blood pressure, oral agents are introduced, and their effect manifested by an automatic reduction in the infusion rate.

We believe that the development of this system represents a significant advance in the practical use of sodium nitroprusside. However, the agent is powerful and potentially dangerous if not handled with care and skill. At present, the system requires a bedside computer, but potential exists to develop a portable device allowing wider distribution at a reasonable cost.

Conclusion

Sodium nitroprusside is a potent vasoactive agent that must be administered intravenously because of its evanescent effect. The drug causes both arteriolar and veno-dilation and thus venous return and cardiac output are little altered in the nonhypertensive situation. Historically, the agent had been used in the treatment of hypertensive crises, and has become a first-line agent in many of these situations. More recently, sodium nitroprusside has been demonstrated to improve hemodynamically both acute and chronic congestive heart failure, and to be effective in the management of these conditions. The place of the drug in treatment of acute myocardial infarction (limitation of infarct size) and its impact on the long-term survival of patients with cardiac disease remains to be determined.

Major problems associated with sodium nitroprusside have been related to its practical use. We have used a computer-controlled closed loop infusion to administer this agent. This system has been used safely and effectively; elevated blood pressure has been reduced without precipitous falls, and control has been maintained over long periods. When compared to a group of similar patients managed by manual infusion of sodium nitroprusside, the patients treated by computer control had better control of mean arterial pressure and a smoother transition to oral medications.

Sodium nitroprusside is a powerful vasoactive agent. In recent years, there has been a justifiable resurgence of interest in the drug because of its unique properties. The clinical applications of nitroprusside have widened considerably and still are expanding.

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Response of left ventricular ejection time to amyl nitrite inhalation in normal subjects

Ralph M. McCleskey, Jr, MD

The response to inhalation of amyl nitrite in 18 normal men and 17 normal women was evaluated using systolic time intervals. The mean rate-corrected left ventricular ejection time decreased by 7 msec in women and increased by 49 msec in men. This difference is statistically significant ($p \leq 0.01$). It is apparent that in studies involving systolic time intervals and amyl nitrite, it is important to separate male and female subjects especially with respect to evaluation of patients suspected of having asymmetric septal hypertrophy.

The inhalation of amyl nitrite (IAN) has been shown in control subjects to have little effect on the left ventricular ejection time (LVET) when corrections for heart rate are made.[1,2] These control subjects were not separated into male and female groups, nor was the male/female ratio stipulated. The response of male and female subjects appears to be of different magnitude and different direction. This observation is supported in part by the work of Sawayama and associates[3] who found a significant prolongation of the LVET after inhalation of amyl nitrite in an all-male control group.

Patients with asymmetric septal hypertrophy have been shown to respond to inhalation of amyl nitrite with prolongation of rate-corrected LVET. This prolongation of LVET has served as a screening test for patients suspected of having asymmetric septal hypertrophy (ASH).[1,2] If the difference between the male and female response to IAN is significant, then the results in the previously reported control groups would be of questionable value. Since the usefulness of the response of LVET to IAN as a screening test is based on the difference between control groups and patients with ASH, the validity of this test would also be questionable.

This study was designed to determine if there is a difference in the response of LVET to inhalation of amyl nitrite in male and female subjects. When a significant difference was found, these results were compared to the previously reported values for control subjects and patients with asymmetric septal hypertrophy. This comparison was made to determine if the difference between the male and female response has any significance with regard to the use of the response of LVET to IAN as a screening test for ASH.

Materials and Methods

Thirty-five subjects, 18 men and 17 women, ranging in age from 18 to 68 years, were studied. Subjects were selected at random from house staff, nursing, and paramedical personnel. No evidence of heart disease was elicited by history, physical examination, or echocardiography. None were receiving any medications. All subjects were in sinus rhythm and had a QRS of 0.10 seconds or less.

Echocardiography was performed on a Smith Kline Ekoline 20A ultrasound unit and a Honeywell 1856 recorder using a 2.25 MHz, 0.5-inch diameter transducer focused at 10 cm. Echocardiographic examination was performed in the standard manner using the T-scan technique.[4]

This clinical research project was completed while the author was a fellow in the department of cardiology, Baylor University Medical Center, Dallas. The project was carried out under the sponsorship of Dr. Charles L. Harris, director of the noninvasive laboratory, department of cardiology.

For this and the accompanying article, Dr. McCleskey has won the *Texas Medicine* award for outstanding scientific writing by a young practicing physician.

In each subject, simultaneous recording of the medium frequency (75 Hz) phonocardiogram, electrocardiogram (Lead II), and the indirect carotid pulse were made on a multichannel photographic writer (Hewlett Packard 4560) at a paper speed of 75 mm/second and with 0.04 second time markers. Heart sounds were recorded simultaneously over the aortic (right second parasternal space), pulmonic (left second parasternal space), tricuspid (fourth left parasternal space) and mitral (apex) areas with contact microphones (Hewlett Packard 21051A). The indirect carotid pulse was obtained with a funnel-shaped indirect carotid pulse pickup (Hewlett Packard 21051D). After a 10-minute resting period in the 30° supine position, a resting tracing was taken. Immediately after the resting tracing, amyl nitrite was inhaled from a broken ampoule held under the nostrils. Subsequent tracings were taken at 15-second intervals for three minutes following the start of inhalation. Each tracing was done during held end expiration.

Systolic time intervals were measured in the usual manner[5] (Fig 1). The left ventricular ejection time was corrected for heart rate both by the regression equation of Weissler[6] (LEVTI*) and the Bazett formula[7] (LVETC†). Measurements were made on the resting tracings (Fig 2) and the tracings obtained at maximum heart rate (Fig 3). At least ten complexes were measured on each tracing and an average obtained.

The values obtained for the change in LVET following inhalation of amyl nitrite in men and women were then compared for statistical significance. These values were also compared to the values previously reported for control subjects and patients with asymmetric septal hypertrophy. All data were analyzed for statistical significance by the difference of the means method.

*LVETI = LVET + 0.0016 x heart rate (women)
= LVET + 0.0017 x heart rate (men)
†LVETC = LVET/$\sqrt{}$ R-R interval (seconds)

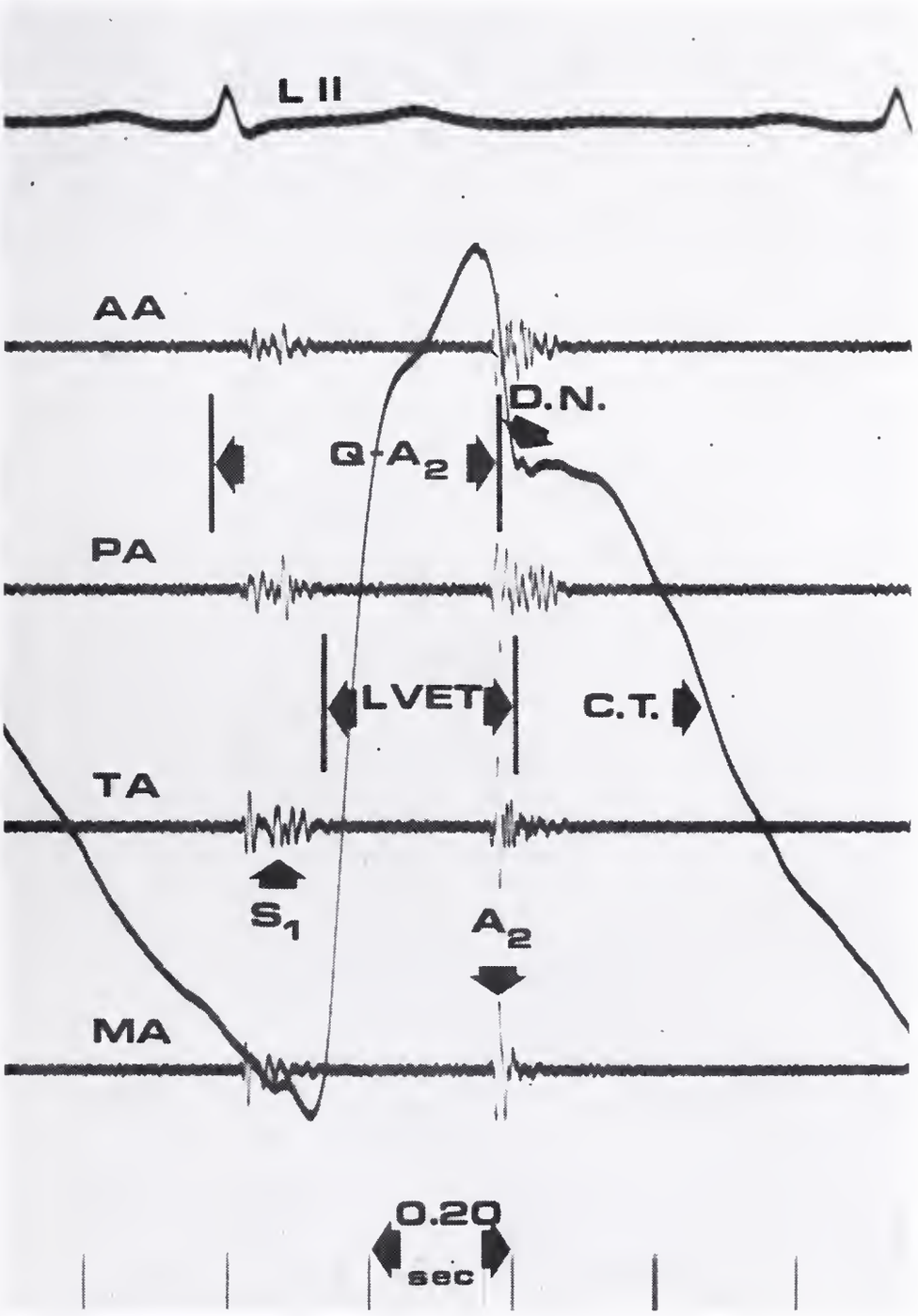
Results

In these age-matched ($p > 0.1$) groups of normal subjects, the resting LVET and preejection period LVET were normal. The resting heart rate and LVET were higher in women, as previously reported.[1] The percent change in heart rate was similar in both groups. The mean change in LVETC for women was —8 msec. The mean change in LVETC for men was +49 msec (Fig 4). This difference is statistically significant ($p \leq 0.01$). The mean LVETI increased by 15 msec in women and 46 msec in men. This difference is also significant ($p \leq 0.01$).

The mean change in LVET following inhalation of amyl nitrite in our normal subjects was then compared to the previously reported values for patients with asymmetric septal hypertrophy and for control subjects reported in the same studies (Fig 5). The response of both male and female subjects was significantly different from that of the ASH control groups with regard to LVETC ($p \leq 0.01$). When male and female groups were combined and compared to the controls, there was no significant difference in LVETC ($p > 0.1$).

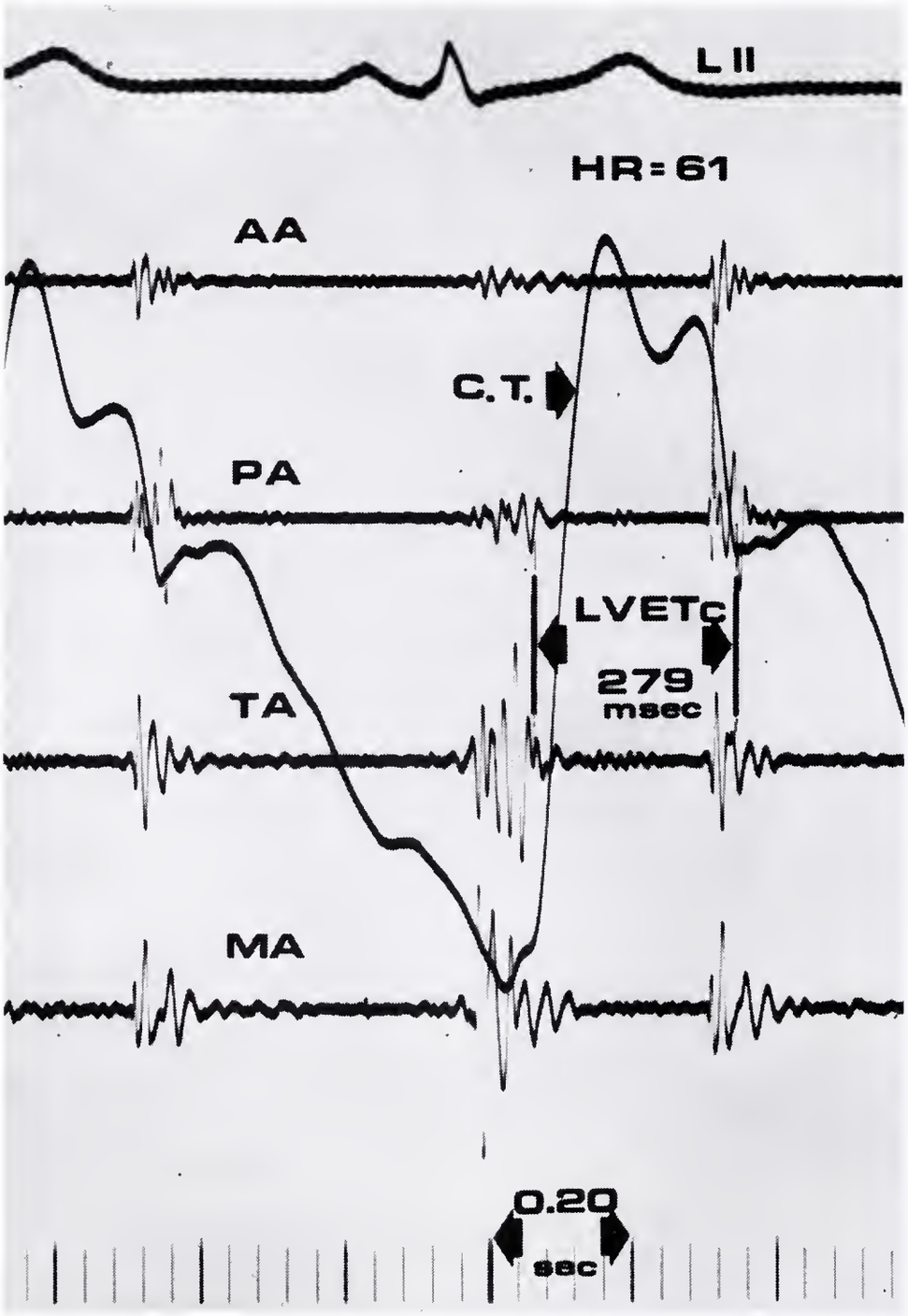
The response of female subjects was significantly different ($p \leq 0.01$) from patients with asymmetric septal hypertrophy. The male response was not significantly different with regard to LVETI ($p > 0.1$), but was significantly different with regard to LVETC ($p \leq 0.05$). However when male and female subjects were combined and compared to patients with ASH, the differ-

1. Simultaneous phonocardiogram, carotid aterial pulse, and electrocardiogram used for determining the systolic time intervals.



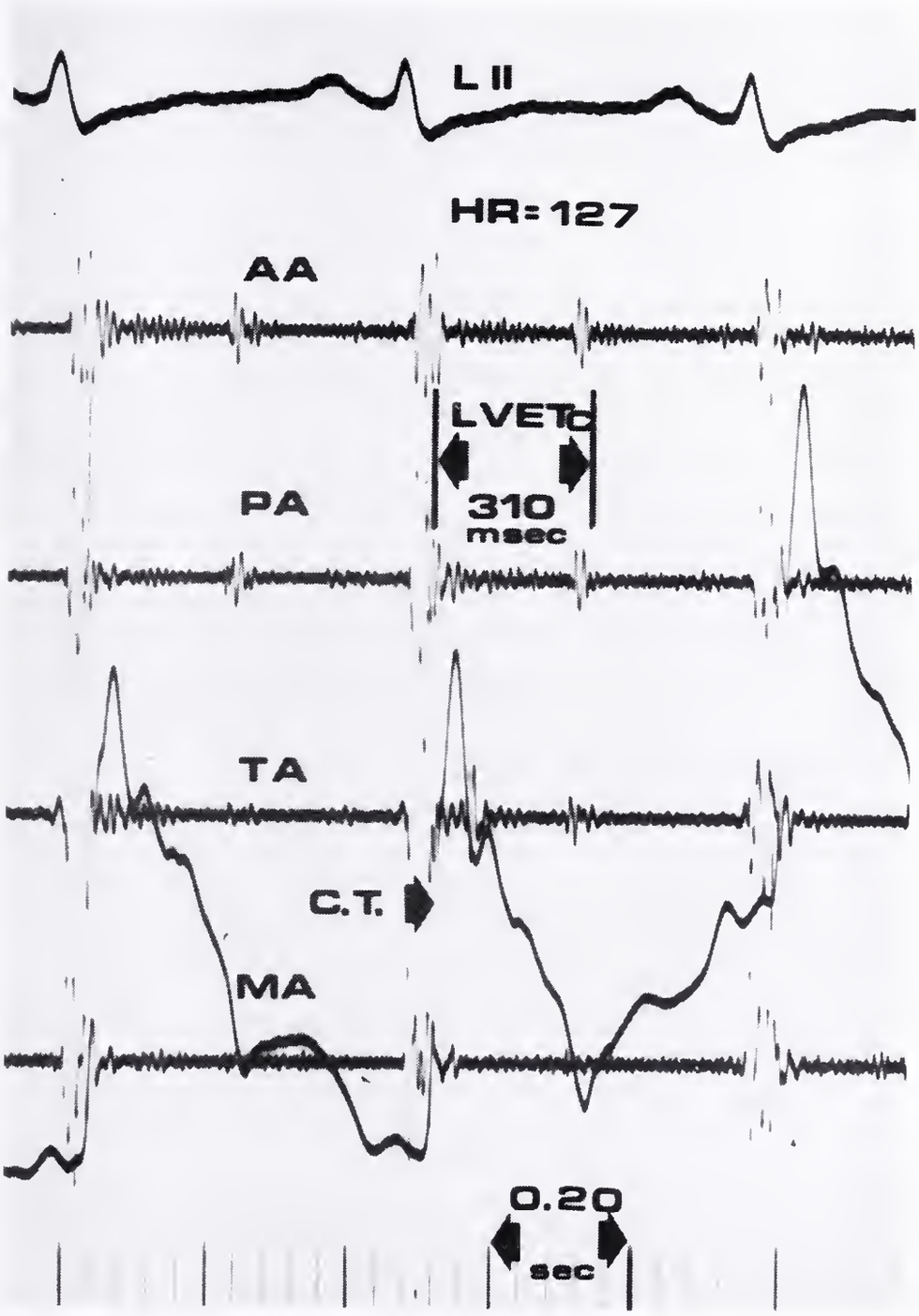
AA = aortic area; PA = pulmonic area; TA = tricuspid area; MA = mitral area; D.N. = dicrotic notch; C.T. = indirect carotid pulse tracing; S_1 = first heart sound; A_2 = aortic component of the second heart sound; Q-A_2 = total electromechanical systole; LVET = left ventricular ejection time. PEP (pre-ejection period) = Q-A_2 minus LVET.

2. *Phonocardiogram taken at rest in a male subject.*



AA = aortic area; PA = pulmonic area; TA = tricuspid area; MA = mitral area; C.T. = indirect carotid pulse tracing; HR = heart rate; LVETC = LVET/√R-R interval (seconds).

3. Phonocardiogram taken at maximum heart rate response following inhalation of amyl nitrite in the same male subject as in Fig 2.



AA = aortic area; PA = pulmonic area; TA = tricuspid area; MA = mitral area; C.T. = indirect carotid pulse tracing; HR = heart rate; LVETC = LVET/√ R-R interval (seconds)

ence was significant with regard to both LVETC ($p \leq 0.01$) and LVETI ($p \leq 0.05$).

Previous studies have shown an increase following inhalation of amyl nitrite in LVETC of 60 msec[1] and LVETI of 40 msec[2] to be useful as a screening test for asymmetric septal hypertrophy. Applying this test to our normal subjects (Fig 6), we found that from 39 to 50% of our normal male subjects met criteria for ASH, whereas only 5 to 12% of normal female subjects fell into this range.

Discussion

Two different studies have shown a small mean increase in rate-corrected LVET following inhalation of amyl nitrite in control subjects. These studies, using both LVETC and LVETI, showed a mean increase of 10 msec.[1,2] It should be noted that not all of these control subjects were "normal." However, the response to IAN was found to be similar in all. Sawayama and associates found a mean increase of 45 msec in LVETI following IAN.[3] Analysis of these three groups reveals that Sawayama studied an all male group, whereas, the other groups were composed of an unknown mix of male and female subjects. Previous work by Weissler has shown women to have a higher resting rate-corrected LVET as well as a different factor for rate correction than men.[7] These data suggested that the difference in response of LVET to IAN might be due to the differences in the male-female composition of the groups studied.

Our data confirm that there is a statistically significant difference in the male and female response of LVET to IAN. The normal male response is to prolong both the LVETC and the LVETI. In women the normal response is for the LVETC to decrease slightly and the LVETI to increase slightly.

The reason for this difference is unclear. It is probably related to the interplay of numerous factors. Weissler and associates have shown the ejection time to vary inversely with heart rate and directly with stroke volume.[9] Since our calculations included a correction for heart rate, the changes in LVET could be caused by changes in stroke volume. Several authors have shown the effect of inhalation of amyl nitrite on stroke volume to be minimal in mixed groups of patients.[10,11] There is suggestive evidence, however, that this response is an average of two different response groups, similar to our data regarding LVET. When the patients of Beck and associates are separated into male and female groups, it becomes apparent that all subjects who increased their stroke volume by more than 25 cc were men. Also, the average stroke volume increase for men was 44 cc compared to an average increase of 8 cc for women.[11] The difference in stroke volume changes may be related to

4. Changes induced by inhalation of amyl nitrite at time of maximal heart rate response. (Mean ± SD)

			At Rest				After Amyl Nitrite					
Group	No.	Age (years)	HR	LVETC (msec)	LVETI (msec)	PEP/LVET	HR	LVETC (msec)	LVETI (msec)	%ΔHR	ΔLVETC	ΔLVETI
Male	18	30±12	66±10	292±27	397±14	0.32±0.05	114±12	341±27	443±19	74±19	49±31	46±23
Female	17	34±14	78±13	318±17	406±15	0.33±0.05	127±22	311±30	424±19	65±25	−8±34	15±27

SD=standard deviation; Δ=value after amyl nitrite minus resting value; HR=heart rate (beats/minute).

the relatively smaller female body size which appears to be accompanied by a relatively smaller left ventricular volume, mass, and long axis.[12]

An alternative explanation to the difference in LVET response to inhalation of amyl nitrite could be the effect of hormonal changes which occur at puberty. Indirect evidence in this regard is offered by the fact that the differences seen in resting systolic time intervals in men and women are not seen in prepubertal children.[7]

Since the male response is an increase in LVETC and the female response is a slight decrease, the mean of a mixed group will vary directly with the male/female ratio. The same is true for LVETI to a lesser degree since the female response is a small increase and the male response is a larger increase. For a given patient, the change will not be statistically valid unless compared to a control group of the same sex. This observation appears to be supported by the remainder of our data. When male and female controls are segregated, the response of LVET to inhalation of amyl nitrite for each is significantly different from that previously described for control subjects. In particular, both male controls and patients with asymmetric septal hypertrophy respond with prolongation of LVET. However, when male and female controls are combined, the response is only a moderate prolongation of the LVET when compared to patients with ASH. For this reason, the currently available criteria for screening for ASH with IAN appears to give a high percentage of false-positive responses in normal men. The previously reported significant prolongation of LVET following IAN in patients with ASH is apparently more directly related to the male-female composition of the group of controls which were studied than it is to the hemodynamics of left ventricular obstruction in the group of patients which were studied.

This observation would not be true if the patient and control groups contained the same mix of male and female subjects. Review of these studies gives no indication that this is the case.

Since the male/female ratio of the patient groups is not known, the response of male and female patients within the group cannot be differentiated nor compared with segregated controls to see if a characteristic response is present.

Conclusions

Our data confirm that the response of LVET to inhalation of amyl nitrite is significantly different in men and women. The reasons for this difference are not clear, but may be related to intrinsic differences between the

5. Changes in left ventricular ejection time induced by inhalation of amyl nitrite. (Mean ± SD)

Group	LVETC	LVETI
Normal males	49±31	46±22
Normal females	−8±34	15±22
Normal males and normal females	21±44	31±27
ASH controls	10±10[2]	10±19[1]
Patients with ASH	74±29[2]	49±27[1]

SD=standard deviation; ASH=asymmetric septal hypertrophy

6. Changes in left ventricular ejection time induced by inhalation of amyl nitrite as a screening test for ASH. (Mean ± SD)

Group	LVETC 60 msec	LVETI 40 msec
Normal males	7/18 (39%)	9/18 (50%)
Normal females	1/17 (5%)	2/17 (12%)
ASH controls	0/53 (0%)[2]	2/34 (6%)[1]
Patients with ASH	13/18 (72%)[2]	11/18 (61%)[1]

SD=standard deviation; ASH=asymmetric septal hypertrophy

sexes such as hormone levels or geometric relationships within the heart.

Based on these data, the only valid comparison of the responses to IAN would be between patients and controls of the same sex or between groups of the same male/female combination. Using available criteria, we found that as many as 50% of our normal men had a LVET response to IAN indicative of ASH.

The maximum number of normal women with the same response was 12%. This suggests that for any given patient, the response of LVET to IAN may be more a reflection of the patient's sex than an indicator of the presence or absence of ASH. Consequently, the use of IAN as a screening test for ASH would not appear to be useful until studies are done which segregate both controls and patients on the basis of sex.

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As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants: causal relationship not established.

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Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
Warning: There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
Precautions: In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

Time is the test of all things

ions of potassium ion may cause death through ardiac depression, arrhythmias or arrest. This rug should be used with caution in the presence f cardiac disease.

In hypokalemic states, especially in patients n a salt-free diet, hypochloremic alkalosis is a ossibility that may require chloride as well as otassium supplementation. In these circumtances, Kaon (potassium gluconate) should be upplemented with chloride. Ammonium chloide is an excellent source of chloride ion (18.7 nEq. per Gram), but it should not be used in atients with hepatic cirrhosis where ammonium alts are contraindicated. Other sources for hloride are sodium chloride and Diluted ydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium ycle cation exchange resin, sometimes used to reat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

Adverse Reactions: Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

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Indications: See Kaon Tablets.

Precautions: See Kaon Tablets.

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Adverse Reactions: See Kaon Tablets.

Overdosage: See Kaon Tablets.

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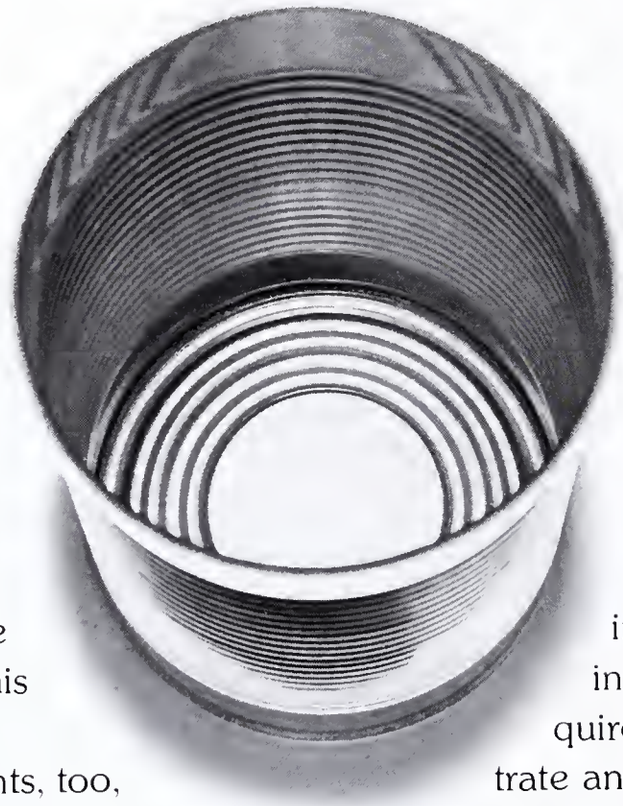

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Response of left ventricular ejection time to inhalation of amyl nitrite in patients with mitral valve prolapse

Ralph M. McCleskey, Jr, MD

The response to inhalation of amyl nitrite in 30 female patients with mitral valve prolapse was evaluated using systolic time intervals. Sixteen patients had resting left ventricular dysfunction, 14 did not. Both groups responded to amyl nitrite with abnormal prolongation of mean left ventricular ejection time. The prolongation was not equal to that seen in patients with asymmetric septal hypertrophy. Possible causes of this abnormal prolongation of left ventricular ejection time following inhalation of amyl nitrite are discussed.

The findings of midsystolic click, late systolic murmur, and midsystolic carotid pulse wave retraction have been reported both in mitral valve prolapse[1] and asymmetric septal hypertrophy.[2] The response of systolic time intervals to inhalation of amyl nitrite in patients with asymmetric septal hypertrophy (ASH) has previously been reported and a characteristic prolongation of left ventricular ejection time (LVET) noted.[3,4] Although the response to inhalation of amyl nitrite of the click and murmur in mitral valve prolapse has been described,[5,6] the response of LVET to inhalation of amyl nitrite has not been described in mitral valve prolapse. This study was designed to determine if a characteristic response of LVET to inhalation of amyl nitrite is present in mitral valve prolapse.

This clinical research project was completed while the author was a fellow in the department of cardiology, Baylor University Medical Center, Dallas. The project was carried out under the sponsorship of Dr. Charles L. Harris, director of the noninvasive laboratory, department of cardiology.

For this and the accompanying article, Dr. McCleskey has won the *Texas Medicine* Award for outstanding scientific writing by a young practicing physician.

Materials and Methods

Thirty patients referred for evaluation of symptoms related to the cardiovascular system and found to have mitral valve prolapse by echocardiography were entered into the study. All patients chosen in this manner were women and ranged in age from 14 to 65 years.

Seventeen normal female subjects ranging in age from 20 to 68 years were selected at random from medical students, nurses and paramedical personnel to serve as controls. None had any evidence of cardiovascular disease on history, physical examination, or echocardiography. All patients and controls were in normal sinus rhythm, had a QRS of 0.10 second or less and were not receiving any medication at the time of the study.

Echocardiography was performed on a Smith Kline Ekoline 20A ultrasound unit using a Honeywell 1856 strip chart recorder and a 2.25 MHz, 0.5 inch diameter transducer focused at 10 cm. Echocardiographic examination was performed in the standard manner using the T-scan technique.[7] Previously described techniques were used to exclude the false-positive diagnosis of mitral valve prolapse.[8]

Each patient and control was studied with a simultaneous recording of the medium frequency (75 Hz) phonocardiogram, electrocardiogram (Lead II), and the indirect carotid pulse made on a multichannel photographic writer (Hewlett Packard 4560) at a paper speed of 75 mm/second with 0.04 second time markers. Heart sounds were recorded simultaneously over the aortic (right second parasternal space), pulmonic (left second parasternal space), tricuspid (fourth left parasternal space) and mitral (apex) areas with contact microphones (Hewlett Packard 21051A). The in-

direct carotid pulse was obtained with a funnel-shaped indirect carotid pulse pickup (Hewlett Packard 21051D). After a ten-minute resting period with the patient in the 30° supine position, a control tracing was taken. Immediately after the control tracing, amyl nitrite was inhaled from a broken ampoule held under the nostrils. Subsequent tracings were taken at 15 second intervals for two minutes following the start of inhalation. Each tracing was done during held end expiration.

Systolic time intervals were measured in the usual manner[9] (Fig 1). The left ventricular ejection time was corrected for heart rate both by the regression equation of Weissler[10] (LVETI*) and the Bazett formula[11] (LVETC†). Measurements were made on the tracings taken at rest (Fig 2) and on the tracings obtained at maximum heart rate response (Fig 3). At least ten complexes were measured on each tracing and an average obtained.

The values obtained for the change in left ventricular ejection time in patients with mitral valve prolapse were compared to the values obtained for the control subjects. A comparison was also made to values previously reported for patients with asymmetric septal hypertrophy. All data were analyzed for statistical significance by the difference of means method.

Results

Fourteen patients with mitral valve prolapse were found to have a normal mean PEP/LVET‡ (Fig 4). Sixteen patients with mitral valve prolapse were found to have evidence of left ventricular dysfunction with an elevated PEP/LVET. Seventeen control subjects had a normal PEP/LVET. The only significant difference in age of the three groups was between the controls and the group with an elevated PEP/LVET.

In the controls, inhalation of amyl nitrite resulted in a decrease in mean LVETC of 8 msec. In contrast, the mean LVETC increased by 19 msec in the prolapse patients with a normal PEP/LVET. This difference is significant at the $p \leq 0.05$ level. The mean LVETC increased by 29 msec in the prolapse patients with an abnormal PEP/LVET. This response is significantly different ($p \leq 0.01$) when compared to the response of the controls. The mean change in LVETI in controls (18 msec) was not significantly different from patients with prolapse and a normal PEP/LVET (24 msec). The mean change in LVETI in patients with prolapse and elevated PEP/LVET (35 msec) was significantly different from controls ($p \leq 0.05$).

Previous studies[3,4] have reported a mean prolongation of LVETC of 74 msec and prolongation of LVETI of 49 msec to be found in patients with asymmetric septal hypertrophy. The prolongation of the mean LVETC in either prolapse group was not as great as that reported in patients with ASH ($p \leq 0.01$). The same held true for the change in mean LVETI and patients with prolapse and normal PEP/LVET. There was not significant difference in the prolongation of LVETI seen in patients with ASH and patients with prolapse and elevated PEP/LVET ($p > 0.1$).

Discussion

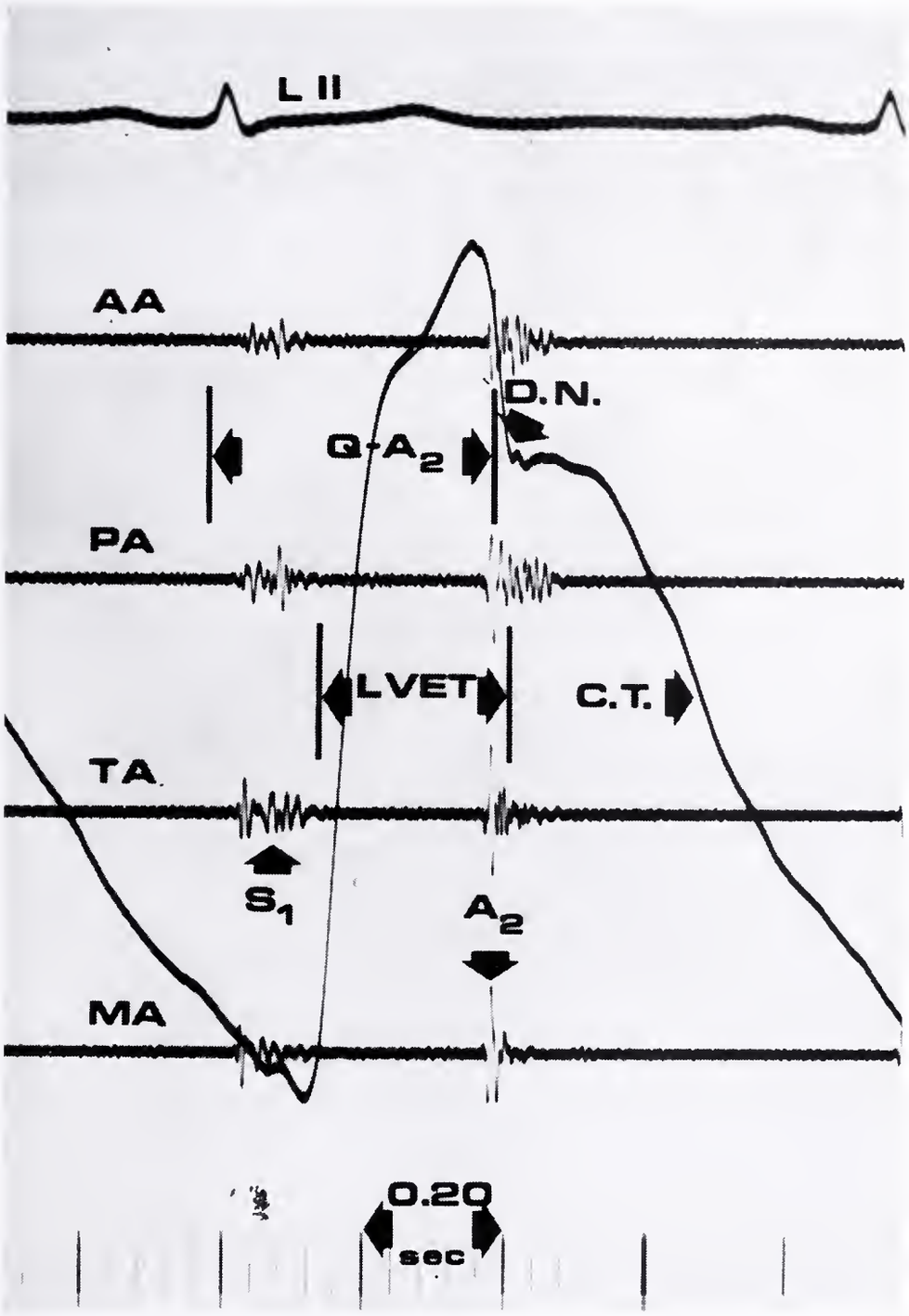
The effects of amyl nitrite on the auscultatory events in the mitral valve prolapse syndrome have been well described.[5,6] Unlike ASH,[3,4] however, the response of systolic time intervals in mitral valve prolapse has not been documented. In our study, the mean change in LVETC for controls showed a small decrease, whereas both groups of patients with prolapse showed a definite increase in LVETC. This increase was most marked in those patients with an elevated PEP/LVET. The mean change in LVETI was only significantly different from normal in

*LVETI = LVET + 0.0016 x heart rate (women)
= LVET + 0.0017 x heart rate (men)

$$\dagger \text{LVETC} = \frac{\text{LVET}}{\sqrt{\text{R-R interval (sec)}}}$$

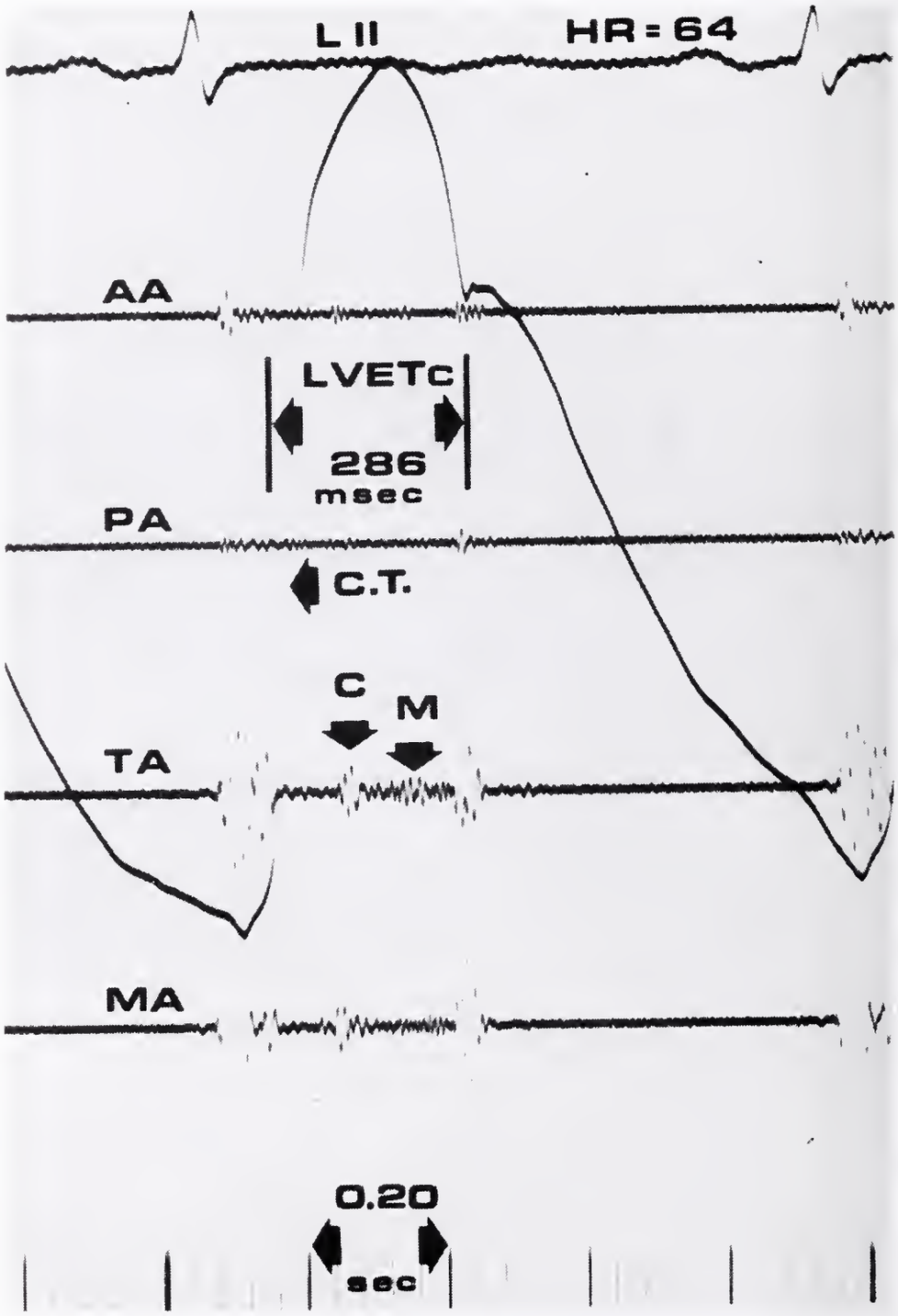
‡PEP/LVET = pre-ejection period left ventricular ejection time

1. Simultaneous phonocardiogram, carotid arterial pulse, and electrocardiogram pulse, and electrocardiogram used for determining the systolic time intervals.



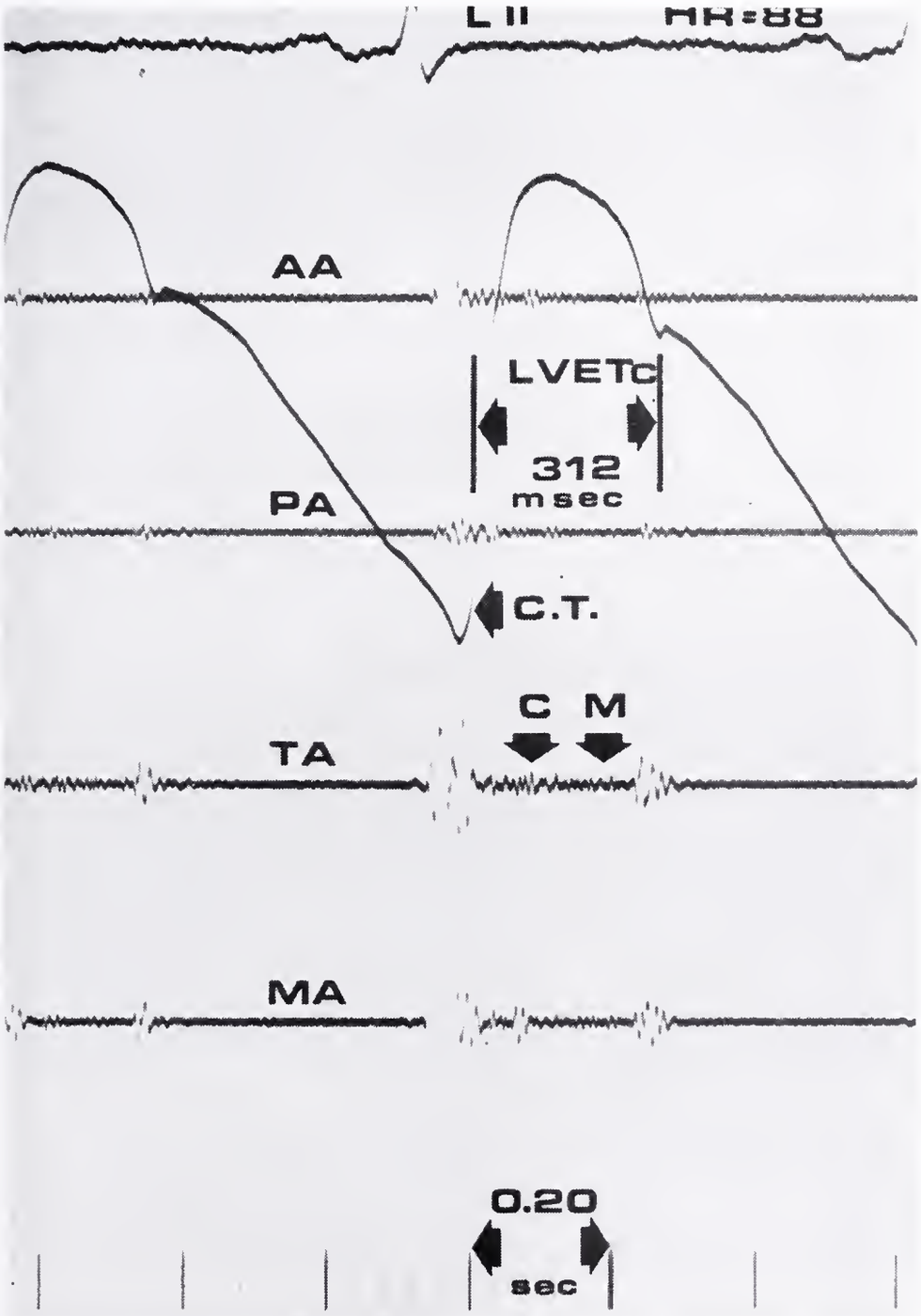
AA = aortic area; PA = pulmonic area; TA = tricuspid area; MA = mitral area; D.N. = dicrotic notch; C.T. = indirect carotid tracing; S_1 = first heart sound; A_2 = aortic component of the second heart sound; Q-A_2 = total electromechanical systole; LVET = left ventricular ejection time; PEP (preejection period) = Q-A_2 minus LVET.

2. Phonocardiogram taken at rest in a patient with mitral valve prolapse.



AA = aortic area; PA = pulmonic area; TA = tricuspid area; MA = mitral area; C.T. = indirect carotid pulse tracing; HR = heart rate; C = midsystolic click; M = late systolic murmur; LVETC = LVET / $\sqrt{R\text{-}R}$ interval (seconds).

3. Phonocardiogram taken at maximum heart rate response following inhalation of amyl nitrite in the same patient as Fig 2.



AA = aortic area; PA = pulmonic area; TA = tricuspid area; MA = mitral area; C.T. = indirect carotid pulse tracing; HR = heart rate; C = midsystolic click; M = late systolic murmur; LVETC = LVET/ $\sqrt{\text{R-R}}$ interval (seconds).

those with an elevated PEP/LVET. It is apparent that in response to inhalation of amyl nitrite the rate corrected left ventricular ejection time responds differently in women with mitral valve prolapse than in normal women. This difference is accentuated by the presence of resting left ventricular dysfunction.

Since direct hemodynamic measurements were not made, no definitive statement regarding the underlying pathophysiologic causes for the abnormal prolongation of the left ventricular ejection time can be made. The apparent relationship to left ventricular dysfunction suggests that the difference between controls and patients with prolapse may be related to a left ventricular dysfunction state (for example, cardiomyopathy) associated with mitral valve prolapse.

Whitsett and Naughton using a rate correction similar to that of Weissler (LVETI) found an exercise induced increase in the left ventricular ejection time of 8 msec to be indicative of latent left ventricular dysfunction.[12] Kraus and Naughton studied the left ventricular ejection time before and after exercise in 12 patients with mitral valve prolapse and normal PEP/LVET. They found prolongation of the left ventricular ejection time great enough to suggest left ventricular dysfunction in 8 of the 12 patients. They postulate that a decrease in left ventricular volume could result in an increased degree of prolapse, an increased chordal tension, endocardial tug, or all of these, and result in an increased degree of left ventricular asynergy.[13] Since inhalation of amyl nitrite also results in decreased left ventricular volume,[14] latent left ventricular dysfunction is a possible explanation for the prolongation of the left ventricular ejection time seen in our patients with prolapse and a normal PEP/LVET.

An elevated PEP/LVET is widely accepted to be indicative of overt left ventricular dysfunction.[9,10] More than half of our patients had evidence for left ventricular dysfunction as manifested by elevation of PEP/LVET. Scampardonis found overall left ventricular performance (including PEP/LVET) to be normal in 87 cases studied, even though 82% had evidence of segmental contraction abnormalities on left ventriculography.[15] Gulotta and associates documented left ventricular dysfunction by angiography in 20 of 26 patients with mitral valve prolapse.[16] This evidence suggests that mitral valve prolapse is a heterogeneous group with regard to overall left ventricular performance. Several observations suggest that the patient's age may be a factor in determining the presence or absence of left ventricular dysfunction. Although there was no significant difference in the mean age of our two prolapse groups, the mean age of the patients with overt left ventricular dysfunction was eight years greater than those with a normal PEP/LVET. In several previously reported studies of patients with mitral valve prolapse,

4. Changes induced by inhalation of amyl nitrite at time of maximal heart rate response. (Mean ± SD)

Group	No.	Age (years)	At Rest HR	At Rest LVETC (msec)	At Rest LVETI (msec)	At Rest PEP/LVET	After Amyl Nitrite HR	After Amyl Nitrite LVETC (msec)	After Amyl Nitrite LVETI (msec)	%ΔHR	ΔLVETC	ΔLVETI
Normal Women	17	34±14	78±13	318±17	406±15	0.33±0.05	127±22	311±30	424±19	65±25	−8±34	15±27
Women with Prolapse and Normal PEP/LVET	14	35±16	76±13	314±13	404±12	0.33±0.04	115±24	332±25	428±17	50±16	19±27	24±22
Women with Prolapse and Abnormal PEP/LVET	16	47±11	77±13	290±16	381±14	0.46±0.05	114±18	318±35	416±26	50±16	29±31	35±21

SD=standard deviation; Δ=value after amyl nitrite minus resting value; HR=heart rate (beats/minute)

there appears to be a loose correlation between the number of patients found to have overall left ventricular dysfunction and the age of the populations studied (Fig 4). In all series except our own, assessment of left ventricular function was by direct hemodynamic measurements. Based on this evidence, it appears that the presence or absence of left ventricular dysfunction may be at least partially related to the patient's age. This suggests that mitral valve prolapse may be a form of cardiomyopathy in which left ventricular dysfunction is latent in the patient's early life and becomes overt as the patient ages.

The prolongation of the left ventricular ejection time in patients with mitral valve prolapse was not found to be of the same magnitude as that seen in patients with asymmetric septal hypertrophy with the exception of the change in LVETI in patients with an elevated PEP/LVET. The echocardiographic studies which were performed rule out the possibility of ASH being associated with mitral valve prolapse in any of our patients as has been recently reported in the patients of Chandraratna and associates.[20]

Conclusions

We have shown that women with mitral valve prolapse respond to inhalation of amyl nitrite with an abnormal prolongation of the rate corrected left ventricular ejection time. This abnormal prolongation may be the result of an associated cardiomyopathy. The presence or absence of overt left ventricular dysfunction associated with the cardiomyopathy may be related to the patient's age. The prolongation of left ventricular ejection time was not found to equal that found in patients with asymmetric septal hypertrophy.

5. Age of patients with mitral valve prolapse compared to the number found to have left ventricular dysfunction.

Series	Number with Left Ventricular Dysfunction	Mean or Average Age
Present	16/30	47
Gulotta[16]	20/26	41
Liedtke[17]	3/9	41
Scampardonis[15]	0/87	38
Gooch[18]	0/23	36
Ehlers[19]	0/6	17

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MEDICINE AND THE LAW

MEDICARE-MEDICAID ANTI-FRAUD AND ABUSE AMENDMENTS

The major health bill passed by the 95th US Congress during the first session was HR 3, the Medicare-Medicaid Anti-Fraud and Abuse Amendments. This bill was signed Oct 26, 1977, and became PL 95-142. Because of the potential impact on physicians, the following summary is presented.

Factoring arrangements

Section 2 modifies the existing law clarifying the ban on the use of factoring arrangements in payments by Medicare and Medicaid monies. No payments owed to physicians may be made to anyone else under a reassignment or power of attorney other than an employer except for certain conditions.

Payment may be made to others under a reassignment to a governmental agency or entity. Payment may also be made under a reassignment if the assignment is established by or pursuant to the order of a court of competent jurisdiction. Payment may be made to an agent of a person or institution if the agent does so pursuant to an agency arrangement where compensation paid to the agent for services for or in connection with the billing or collection of payments due under the plan is unrelated (directly or indirectly) to the amount of payments or billings and is not dependent on actual collection of any payment.

The section also amends the Medicaid law to require the state to provide for claims payments which insure that 90% of claims for payments for services are paid within 30 days of the receipt of the claims and 99% of the claims are paid within 90 days of receipt. The section also requires the state to provide for prepayment and post-payment claims review procedures, including review of data about the recipient and provider of services to insure proper and efficient claims payment and program management.

These requirements may be waived by the HEW Secretary if the state has exercised good faith in trying to meet them. States must comply by the calendar quarter beginning on or after July 1, 1978.

Ownership disclosure

Section 3 requires disclosure of ownership and related information by certain service providers. The section requires the HEW Secretary, by regulation or by contract, to provide that each disclosing entity, under the maternal and child health and crippled children's services, mental retardation programs, and Medicare and Medicaid, will furnish full and complete information about the identity of each person with an ownership or controlling interest in the entity or in any subcontractor in which the entity directly or indirectly has a 5% or more ownership.

A disclosing entity is a provider of services, as defined, an independent clinical laboratory, a renal disease facility, or a Health Maintenance Organization; an entity (other than an individual practitioner or group of practitioners) that furnishes, or arranges for the furnishing of items or services for which payment may be claimed by the entity under any program approved by Medicare; a carrier or agency acting as a fiscal intermediary or agent with respect to one or more providers of services; or an entity (other than individual practitioner or group of practitioners) that furnishes or arranges for the furnishing of health-related services for which payment may be claimed by the entity under Medicaid.

A person with an ownership or controlling interest is a person who owns 5% or more in the entity or owns 5% or more

interest in any mortgage, deed of trust, note, or other obligation secured by the entity or any property or assets thereof; an officer or director of the entity of a corporation; or a partner.

Information about the ownership of a subcontractor with whom a provider has had business transactions during the previous 12 months in an aggregate amount in excess of $25,000 and information about any significant business transaction occurring during the 5-year period ending on the date of the request between the provider and any wholly-owned supplier or between the provider and any subcontractor may be required by regulation. Similar information is required by an intermediate care facility.

The HEW Secretary may not make payments to entities not complying with the disclosure requirements.

Penalties

Section 4 increases the penalties to felonies for fraudulent activities as defined under the existing Medicare programs.

Subsection 1877 (b) (1) of the Medicare Law and Section 1909 (b) (1) of the Medicaid Law are new penalties. Solicitors or receivers of any remuneration, including any kickback, bribe, or rebate, directly or indirectly, overtly or covertly, in cash or in kind, in return for referring an individual to a person for the furnishing or arranging for the furnishing of any item or service for which payment may be made in whole or in part under Medicare or Medicaid or in return for purchasing, leasing, ordering or arranging for or recommending purchasing, leasing or ordering any goods, facility, service, or item for which payment may be made in whole or in part under Medicare or Medicaid shall be guilty of a felony. Upon conviction the person shall be fined not more than $25,000 or imprisoned for not more than five years or both.

These fines do not apply to price reduction obtained by a service provider or other entity if the price reduction is properly disclosed and appropriately reflected in the cost claimed or charges made by the provider or entity under Medicare or Medicaid or to any amount paid by an employer to an employee who has a *bona fide* employment relationship with the employer for employment in the provision of covered items or services.

The Medicare law was amended to provide that those who accept assignments and who knowingly, willfully, and repeatedly violate the assignment terms are guilty of a misdemeanor and upon conviction are fined not more than $3,000 or imprisoned for not more than six months or both.

A new penalties section under the Medicaid law provides that whoever knowingly and willfully charges money or other consideration at a rate in excess of the rates established by the state, or charges, solicits, accepts, or receives, in addition to any amount otherwise required to be paid under a state plan any gift, money, donation, or other consideration as a precondition of admitting a patient or as a requirement for the patient's continued stay when the cost of the services to the patient is paid in whole or in part under the state plan, shall be guilty of a felony and upon conviction shall be fined not more than $25,000 or imprisoned for not more than five years or both. This section excludes charitable, religious, or philanthropic contributions from an organization or from a person unrelated to the patient.

The amendments apply to acts occurring and statements or representations made on or after the law's enactment.

PSRO amendments

If the HEW Secretary finds that a PSRO designated on a conditional basis or otherwise is competent to perform review responsibilities required by the act, then other review-type provisions of the law will be inapplicable except to the extent specified by the HEW Secretary.

During the trial period of a PSRO, the HEW Secretary may require additional review by a PSRO. If a PSRO is unable to perform satisfactorily all of the required functions, the HEW Secretary may extend the organization's trial period for an additional period not to exceed 24 months.

Shared health facility is defined as an ar-

rangement where two or more health care practitioners practice their profession at a common physical location. The practitioners share common waiting areas, examining rooms, treatment rooms or other space, supporting staff services, or equipment. The practitioners have a person (who may be a practitioner) in charge of controlling, managing, or supervising substantial aspects of the arrangement or operation for delivery of health or medical services at the common physical location. The person may make available to the practitioners the services of supporting staff who are not employees of the practitioners. The person is compensated for the use of the common physical location or support services on a basis related to amounts charged or collected for the services rendered or ordered at the location or on any basis clearly unrelated to the value of the services provided by the person.

At least one of the practitioners must receive payments on a fee-for-service basis under titles under the crippled children's programs and Medicare or Medicaid in an amount exceeding $5,000 for any one month during the preceding 12 months or in the aggregate amount exceeding $40,000 during the preceding 12 month period.

The HEW Secretary is permitted to enter into an agreement with a PSRO in the form of a grant or an assistance agreement. Where a PSRO requests review responsibilities for services furnished in shared health facilities, the HEW Secretary must give priority to the request with highest priority given to a request from organizations located in areas with substantial numbers of shared health facilities.

The HEW Secretary shall require PSROs capable of exercising review responsibility for ambulatory care services to perform the services on or after a date not earlier than the date the organization is designated a PSRO (excluding a trial period) and not later than two years after the date the organization was designated. Any PSRO may be approved prior to this time if capable of performing this review.

The section of the PSRO law relating to the review approval as a condition of payment of claims is amended to make qualified PSROs review the conclusive determination for payment. No other review shall be conducted under the other provision of the Medicare or Medicaid laws.

The PSRO designation statute is amended to require that during the development and preparation by an organization of its formal plan to include review services in skilled nursing facilities, intermediate care facilities, or review of ambulatory care services, the organization shall consult with the state agency responsible for administering Medicaid. The plan and modifications are to be submitted to the governor at the time of its submission for his comments.

Before making the finding of qualification as a PSRO, the HEW Secretary shall consider the comments of the governor before the end of the 30 day grace period beginning on the date of submission of the plan or of any modification. If the HEW Secretary intends to make findings adverse to the governor's comments, the governor must be given 30 days to submit additional evidence.

The trial designation statutes on PSROs are further amended to permit the same comment period on the governor's behalf.

A new section has been added relating to memorandums of understanding and federal state relationships generally.

A PSRO review shall not constitute conclusive determinations for Medicaid unless the PSRO has entered into a memorandum of understanding with the state approved by HEW. The memorandum shall be for the purpose of delineating the relationship between the state agency and the PSRO for exchange of data or information and for administrative procedures, coordinating mechanisms, and modification of the memorandum at any time that additional responsibility for review by the PSRO is authorized.

The HEW Secretary can waive the requirement if a state agency under Medicaid indicates it does not wish to enter into such a memorandum with a PSRO or if the state refuses to negotiate with a PSRO as a precondition for payment.

The state may request a specification of review goals and methods (in addition to

those in the plan) for the performance of the duties and functions under the PSRO law. If the state agency and the PSRO cannot agree on a memorandum, the HEW Secretary is to review such specifications and determine if they are consistent with the PSRO functions and do not harm the effectiveness of the organization's capabilities.

The state and the PSRO can enter into a contract with the PSRO for other review responsibilities in addition to those required to be performed and the state bears the additional cost.

The state agency may monitor the performance of a PSRO in accordance with a state monitoring plan approved by the HEW Secretary and be reimbursed for the cost by HEW.

When a state submits documents to HEW that a PSRO has caused an unreasonable and detrimental impact on total state expenditure under Medicaid and on the appropriateness of care received by individuals under the state's plan, the HEW Secretary shall within 30 days make a determination of this documentation and if this is found to be true, without corrective action having been taken, the HEW Secretary may suspend in whole or in part the conclusive determination function of the PSRO. The HEW Secretary shall notify the state and the appropriate Congressional committees.

In addition to utilizing the services of and acceptance of the findings of a review committee of a hospital, a PSRO shall afford the same acceptance by the services of a skilled nursing facility or intermediate care facility which is also part of the hospital or other operating health care facility or organization which is not part of the hospital.

A PSRO is given additional responsibility to assume review activities in intermediate care facilities and public institutions for the mentally retarded, but only if the state is not performing effective review or the state requests these services.

A PSRO is now required to assume review in skilled nursing facilities if the HEW Secretary finds the state is inefficient.

The new legislation staggers the terms of the National PSRO Review Council so that no more than four terms expire in any one year.

A PSRO is now required to provide, in accordance with procedures established by the HEW Secretary, data and information to assist federal and state agencies recognized by the HEW Secretary as having responsibility for identifying and investigating cases or patterns of fraud or abuse. The information will also be used to assist the HEW Secretary and federal and state agencies (including HSAs and state health planning agencies) in health care planning. The information will be in a format prescribed by the HEW Secretary or agreed upon in the form of aggregate statistical data (without identifying any individual) on a geographic, institutional, or other basis reflecting the volume and frequency of services furnished and the demographic characteristics of the populations subject to review by the PSRO. Unauthorized disclosure by the receiving agency is subject to penalty.

No patient record in possession of a PSRO, a statewide PSRO review council, or the National PSRO Review Council shall be subject to subpoena or discovery proceedings in any civil action.

The HEW Secretary is now required to pay reasonable legal expenses to the PSRO, any member or employee in connection with the defense of any suit, action, or proceeding brought against the PSRO, member, or employee related to the performance of any duty or function of the organization.

The HEW Secretary is permitted to pay for PSRO services from funds delineated with regard to contributions by any state or political subdivision.

Annual report

The HEW Secretary is required to submit to Congress no later than April 1, 1978, and no later than April 1 of each year after, a full and complete report on the administration, impact, and costs of the program. The report should include the number, states and service areas of and review methodologies employed by PSROs. The report will also include the number of health care institutions and practitioners whose services

are subject to PSRO and the number of beneficiaries and recipients who receive services subject to review. Imposition of penalties and sanctions for violations imposed shall be included. The report will also include the total costs incurred in all programs in implementation and operation, changes in utilization rates and patterns and changes in medical procedures and practice attributable to activities of the PSRO, results of program evaluation activities, extent to which PSROs are performing reviews for other governmental or private health insurance programs, and recommendations for legislative changes.

The medical officers in American Samoa, the Northern Mariana Islands, and the trust territory of the Pacific Islands are added to the PSRO program.

Subpoenas by Comptroller General

Section 6 outlines the new subpoena power of the Comptroller General. For the purpose of any audit, investigation, examination, analysis, review, evaluation, or other function authorized by law with respect to any program under the PSRO law, the Comptroller General shall have the power to sign and issue subpoenas to any person requiring the production of any pertinent books, records, documents, or other information.

No personal medical record in the possession of the General Accounting Office shall be subject to subpoena or discovery.

Suspension of practitioners

Section 7 provides the program for suspension of practitioners convicted of Medicare-Medicaid related crimes. When the HEW Secretary finds that a physician or other individual practitioner has been convicted of a criminal offense related to the physician's or practitioner's involvement in the Medicare or Medicaid program, the HEW Secretary or state agency shall suspend the physician or practitioner from participation for such period deemed appropriate. No payments may be made during this period. The HEW Secretary is to notify the state agency and licensing agency of the action. Certain waivers of suspension and payment are made upon state request including programs where services cannot otherwise be obtained.

Provider disclosure

As a condition of participation, any hospital, nursing home facility, or other institution, organization, or agency shall be required to disclose to HEW or the appropriate state agency the name of any person who has a direct or indirect ownership or controlling interest of 5% or more in such institution or organization or agency or is an officer, director, agent, or managing employee. The facility must also disclose the name of any person who has been convicted of a criminal offense related to the person's involvement in any of the programs on or after the effective date of this act or within a period of time prior to that date as specified by the HEW Secretary.

The HEW Secretary or state agency under Medicaid may refuse to enter into any contract or agreement with an institution that has any person with the above related ownership and conviction or who fails to disclose this information.

Federal access to records

The HEW Secretary is given access to records that the single state agency under Medicaid is authorized to receive.

Claims processing

Section 10 provides for payments of certain monies to states based on claims processing and information retrieval systems based on sample groups of individuals.

Restrictions

Section 11 amends the Medicaid program to provide that no payment shall be made by HEW to the state for services for which a private insurer should have been responsible unless the insurer had a provision in its contract that limits or excludes coverage because the person was eligible for assistance under the state plan.

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Additional incentives are provided for payments to states which have support payment enforcement programs. Additional authority is given to states to require assignments of support payments as a condition of participation.

Study and review

The Comptroller General is required to conduct a comprehensive study and review of the administrative structure established for processing claims under the Social Security Act to determine whether and to what extent more efficient claims administration under titles could be achieved. This report is due by July 1, 1979.

Section 13 repeals and abolishes program review teams under the Medicare program.

Fiscal intermediaries

Section 14 provides that the HEW Secretary may not enter into or renew an agreement with any agency or organization to provide fiscal intermediaries services until certain additional requirements are provided. The HEW Secretary is authorized to enter into a contract of this type for services to a class of providers of services in the nation or region if the HEW Secretary deems that such would be more efficient.

Section 15 requires providers to disclose to the HEW Secretary the hiring of certain former employees of fiscal intermediaries.

Durable medical equipment

Section 16 requires purchase of durable medical equipment in cases where it would be more practical than rental.

Medicaid fraud unit

The HEW Secretary is authorized to pay 90% of the sums expended, subject to other restrictions, for the cost of establishing a separate and distinct unit from the single state agency to conduct a statewide program for investigation and prosecution of violations of all applicable state laws regarding fraud under the Medicaid program.

Home health service

Section 18 requests the HEW Secretary to submit a report, no later than one year from the date of the law, analyzing, evaluating and making recommendations on all aspects of the delivery of home health and other in-home services authorized to be provided under the Social Security Act.

Uniform reporting systems

The HEW Secretary is required to establish by regulation a uniform system for the reporting by a facility or organization of certain information. The facilities or organizations include hospitals, skilled nursing facilities, intermediate care facilities, home health agencies, HMOs, and other types of health services facilities and organizations to which payment may be made under the act.

The uniform reporting must include information about the aggregate cost of operations and aggregate volume of services, the costs and volume of service for various functional accounts and subaccounts, rates by category of patient and class of purchaser, capital assets and value of land, facilities, and equipment, and discharge and bill data. The HEW Secretary is to monitor the system and make necessary revisions. The Secretary is also required to furnish information to the state health planning and development agencies.

Reduction of federal funds

Section 20 waives imposition of reduction of federal funds to certain states for failure attributable to periods before Jan 1, 1978. The section provides reports on states' activities and compliance is necessary or the HEW Secretary is authorized, and in some cases instructed, to withhold payments to states.

The requirement of a regular program of medical review of patients in skilled nursing homes by medical review teams was amend-

ed to provide that the composition of the medical review teams is changed to physicians or registered nurses and other appropriate health and social service personnel.

Patient fund protection

Section 21 provides that skilled nursing home facilities are to establish a system that assures a full and complete accounting of patients' personal funds and includes use of separate accounts which are not comingled with facility funds or with funds of any other patient. This provision is effective six months after the effective date of the act.

Payments for institutional care

Section 22 amends the PSRO law to provide that when a PSRO determines that further institutional care is not medically necessary, payment may be made for only one additional day. However, a PSRO may authorize up to three additional days on a case by case basis where additional time is needed to arrange for necessary post-discharge care.

Section 23 provides that payment may be made to a hospital operated by the Veterans Administration for inpatient hospital services furnished under certain circumstances. This shall apply to services furnished on or after July 1, 1974.

Ace Pickens
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

Health Maintenance Organization progress in Texas and the United States

Health Maintenance Organizations—their development has been slower than expected.

Nationally, the federal government is trying to increase that development pace. HEW Secretary Joseph Califano has decided to expand a March 10 conference, that's been in the planning stages for months, into a large labor-management meeting. Invited to the meeting sponsored by the US Dept of Health, Education, and Welfare will be representatives of labor and the nation's large corporations.

Stressing that HEW's interest in prepaid group practices as a health care cost containment technique is growing, HEW Under Secretary Hale Champion said efforts are intensifying to clear the backlog of applications for HMO support grants. There are four state certified HMOs in Texas, including one which is also federally certified. Six other organizations are in the development stage, most with federal funds.

Texas HMOs

The four Texas plans that have received state certification include the Alamo Health Care Plan, Inc. in San Antonio; the Group Health of El Paso in El Paso; the Prudential Health Care Plan, Inc. in Houston; and the Texas Prepaid Health Plan in Houston.

The Alamo Health Care Plan, Inc began with a federal grant prior to the federal HMO Act of 1973. The plan is currently funded through premiums.

The Prudential Health Care Plan is federally qualified and funded by Prudential.

The Texas Prepaid Health Plan receives private funding.

There are at least six other Texas plans in different stages of development.

Texas regulations

The Texas Legislature, in the 1975 Session, enacted Senate Bill 180, the Health Maintenance Organization Act, which cleared the way for the establishment of HMOs in Texas.

Initial state activity was background information-gathering in preparation for writing rules and regulations for both the State Board of Insurance and the Texas Department of Health Resources. The law became effective Dec 1, 1975, and since that time the Texas Department of Health has been consulting with developing HMOs and doing on-site surveys.

The State of Texas was added to a growing list of states that recognized HMOs with the enactment of SB 180. The 1975 legislation provides for the establishment, organization, regulation and certification of Health Maintenance Organizations. Responsibilities for regulation and certification are vested in the State Board of Insurance and the Texas Department of Health. Construction or remodeling plans must receive approval of the Texas Health Facilities Commission.

The Texas Department of Health is responsible for evaluating the quality of care being provided by the HMO and making recommendations for or against certification to the State Board of Insurance. The insurance board regulates the fiscal and administrative structure of the HMO and is charged with issuing or denying Certificate of Authority. Each agency promulgated regulations specific to its delegated responsibilities and merged them into a single document which became effective Dec 1, 1975.

Health Maintenance Organizations established in Texas must comply with other state laws. Therefore, the HMOs cannot

place physicians on salary. An acceptable arrangement is for the HMO to contract with a group of physicians to provide the required medical services.

SB 180 specifically prohibits the corporate practice of medicine. At the time it was passed TMA officials felt that the bill would regulate the delivery of health care in such a manner to be in the best interest of patients and physicians.

HMOs nationally

In 1976, there were 175 HMOs in operation covering 6 million people in 37 states. This represents a substantial increase since 1971, when there were 33 plans with 3.5 million members, but statistics indicate there are still more eligible to join a prepaid plan.

HMO background

The concept of prepaid health care is not precisely new. In 1655, for example, a physician named Esteinne Bouchard is reported to have offered to provide his services on a prepaid basis to his neighbors in Villemarie (site of present-day Montreal), Canada.

Prepaid health care began in the US nearly half a century ago, when the Ross-Loos Medical Group (Los Angeles) opened its doors for business in 1929. By 1970 there were 33 HMO-type health plans in the US.

In the early 1970s, the federal government announced that promotion of HMOs would be a keystone of the Nixon Administration's health strategy. HMOs, the Administration claimed, would provide more and better health care.

After massive amounts of official encouragement and taxpayer dollars, the number of prepaid health plans was increased from 33 in 1970 to 183 in January 1975.

The administration asked Congress to authorize $57 million in 1972 and $60 million in 1973 to help more than 600 HMOs to become organized. Government plans called for 1,700 HMOs to be in business by July 1976, sufficient to serve 40 million people.

Federal grants were awarded during 1972 and 1973 to 110. Of those 110, only 33 opened their doors to patients, while a larger number—38—are reported to have expired without ever becoming operational.

At the Administration's urging, Congress enacted the HMO Act late in 1973. The Act specified (1) the basic and supplemental health services to be provided HMO subscribers and their families; (2) the basis for fixing the rate of prepayment for those services; (3) the requirement that HMOs have open enrollment periods for individual members without restrictions, so that persons with existing medical conditions would be eligible for membership; and (4) the organizational structure of an HMO.

The Act authorized a five-year demonstration program designed to facilitate the development of new, and the expansion of existing HMOs by Federal financial assistance and in other ways.

The ultimate objective of the Administration was stated thusly: "By the end of the decade, the goal will be to have a sufficient number of HMOs to enroll 90% of the population . . ."

Prepaid health plans that meet the criteria of the HMO Act are called "qualified" HMOs. As of June 1976, 16 of the 175 prepaid plans (or fewer than one in every ten) were officially "qualified."

1976 HMO amendments

A far-reaching series of amendments to the HMO Act was passed by Congress in August 1976 and signed by the President in October. These amendments permit HMOs to provide lower levels of care and to select among the healthier segments of the community for their membership. The AMA testified vigorously against enactment of the amendments and in favor of giving the five-year demonstration program a fair try.

The Congressional action, according to the Acting Director of HEW's Division of Health Maintenance Organizations, "removed the most significant restrictions to successful competition by HMOs in the health care marketplace."

Among other things, the amendments greatly relaxed the criteria for certification as a qualified HMO. It now being easier to do so, given the new, lower standards, the number of qualified HMOs increased—to 29 by April 1977. That was nearly double the 16 qualified HMOs of a year earlier.

The following paragraphs focus on specific changes by the amendments:

The HMO Act specified two categories of service a qualified HMO must provide: basic and supplemental. Basic services included physician services, hospital services, emergency services, certain mental health services, services for abuse of, or addiction to, alcohol and drugs, laboratory and X-ray services, home health services, and preventive health services.

Supplemental services were defined to include nursing home care, vision care, dental services, mental health services, physical medicine and rehabilitative services, and prescription drugs.

The amendments made two important changes in the HMO benefit structure. Among basic benefits, preventive dental care for children was deleted as a basic benefit.

More important was a change in supplemental benefits: the amendments allow the provision of any or all of these benefits to be optional with the HMO.

If it wishes to, under the HMO Act, an HMO may even offer supplemental benefits on a fee-for-service basis.

The net effect of the amendments is to reduce substantially the "comprehensiveness" of the HMO benefit package.

The amendments have removed the requirement that a medical group be primarily engaged in providing service to an HMO. Other provisions allow the HMO to contract with outside health care professionals to supply services.

Another amendment removes the requirement that the HMO hold an annual "open season," during which anyone in the community who wished to enroll in the HMO could do so. The amendment allows the plan to postpone an open season for at least five years.

The HMO is under no obligation to include unfavorable medical risks among its covered population.

The HMO Act required HMOs to establish premiums based on a community rate, rather than an experience rate. That meant that an HMO could not establish prepayment rates based on health utilization patterns, age, or sex differences among the groups to whom they marketed. Rather, they were required to establish one rate which would apply to all subscribers. One of the purposes of community rating was to spread equally among subscribers the financial costs for comparable coverage.

However, one of the amendments allows an HMO to delay imposition of the community rating requirement until five years

after it has become qualified. In a report to Congress, the General Accounting Office said that "We have no information which indicates that such a delay will contribute to the eventual success of an HMO."

Of the 32 HMO-type plans that provided coverage to federal employees in 1975, 21 prepaid group practices were community rated, three prepaid groups were experience rated, and one group experience rated for hospital services and community rated for non-hospital services, and seven prepaid individual practice plans experience rated.

What's ahead

What is ahead for prepaid health groups and health maintenance organizations in Texas and the United States? Part of that will have to be answered after the HEW Secretary meets with business and labor leaders in March.

Already, Congressional action is being considered that would upgrade HMOs from their status by broadening HEW's authority to finance and qualify the prepaid health groups and to increase funding for loans, grants and expansion.

Lifesaving Partnership... Against Cancer Quackery

The anguish associated with cancer is compounded by the cancer quack. False hopes—harmful delays—devastating expenses—deceptive diagnoses—loss of life—these are hazards facing the cancer patient desperate enough to seek a cancer quack.

The problem: how to divert the patient from this tragic encounter.

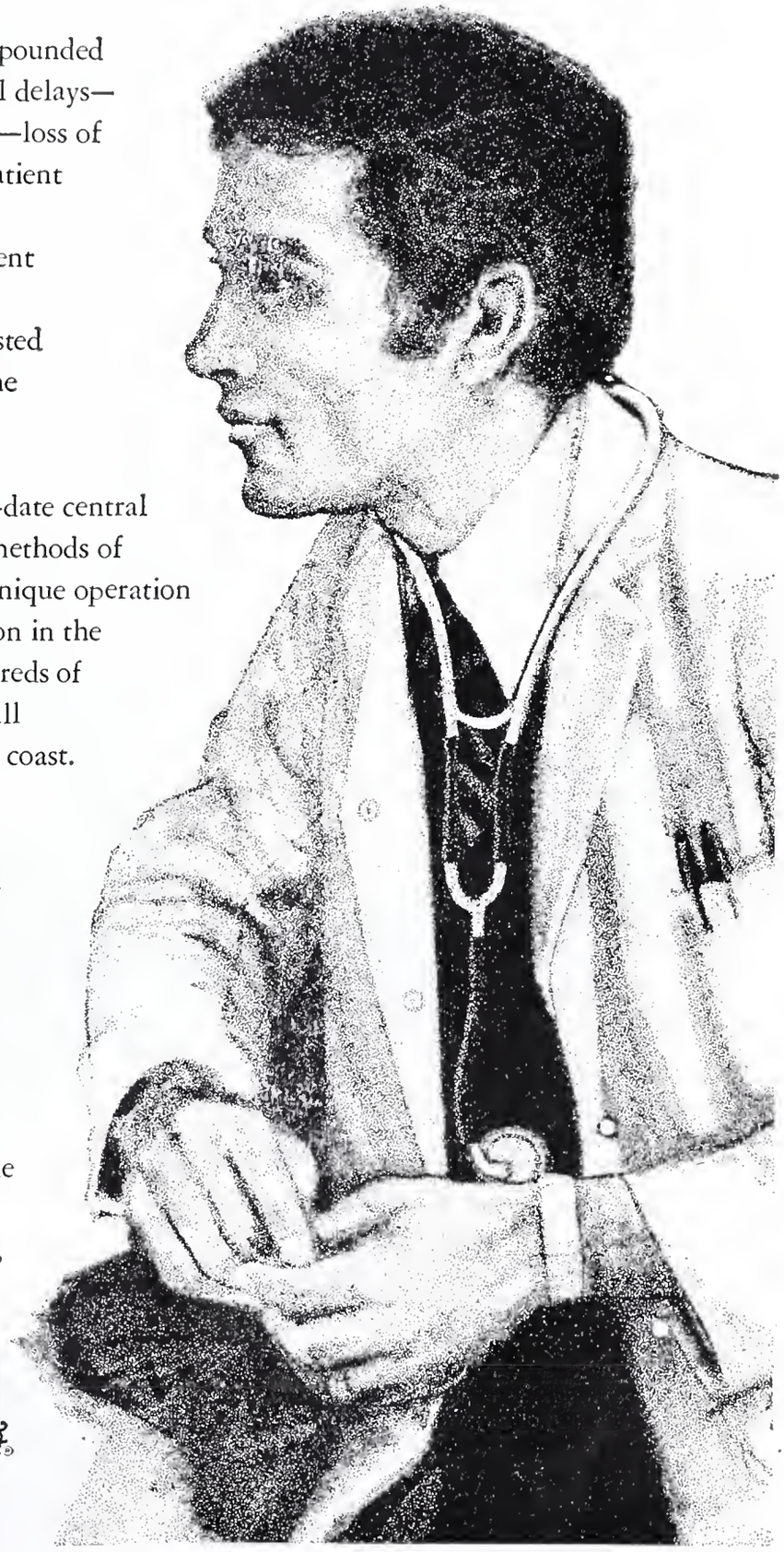
As medical guide, family counselor, trusted friend—you, *doctor,* play a major role in the fight against cancer quackery.

We are here to serve as your partner.

Our National Office maintains an up-to-date central clearinghouse for materials on unproven methods of cancer diagnosis and treatment. This is a unique operation and the principal source of such information in the country. Its services are widely used. Hundreds of inquiries are received and answered from all segments of the community, from coast to coast.

To trigger grass-roots action, we have formulated a model State Cancer Remedy Act designed to control the promotion and sale of unproven methods of cancer management. This has helped to inspire some 20 states to enact or consider legislation against cancer quackery—with active support from the medical community. Copies of the model act, as well as copies of laws in effect, are available through our National and Division offices.

In these actions against cancer quackery, as in all our efforts against cancer, ours is a lifesaving partnership.



American Cancer Society

Texas Division Inc.
P. O. Box 9863
Austin, Texas 78766

Information for authors

Texas Medicine is a scientific, clinical journal published primarily for members of the Texas Medical Association. In addition, it informs members—through editorials, news pages, and regular departments—about medical events, legislative and governmental news, coming meetings, continuing education courses, and programs and policies of the Association.

Material for *Texas Medicine* may be sent to the Managing Editor, 1801 North Lamar Blvd., Austin 78701. It must be offered solely to this journal. Each article is reviewed by a consultant specialist and an editorial board, and is accepted or rejected on the basis of its individual merit and the availability of other material. Reviews usually take six to eight weeks.

New Requirement for Authors
In view of The Copyright Revision Act of 1976, effective Jan 1, 1978, all transmittal letters to the editor must contain the following language before manuscripts can be reviewed for possible publication:

"In consideration of the Texas Medical Association taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the Texas Medical Association in the event that such work is published by the TMA."

We regret that transmittal letters not containing the foregoing language signed by all authors of the manuscript will necessitate return of the manuscript.

Scientific Articles
Manuscripts should be typed double-spaced with ample margins on firm paper. Two copies should be submitted and the author should keep a copy.

Titles should include the words most suitable for indexing the article in "Index Medicus," should stress the main point, and should be brief. Subtitles should not be connected grammatically with the main title.

Authors' names and degrees should follow the title, and their mailing addresses should be listed at the end of the article.

An introductory summary of 50-75 words is required.

Text should be narrative with complete sentences, few abbreviations, and logical subheadings. For spelling and usage the editors follow "Dorland's Illustrated Medical Dictionary," 25th edition, and "Webster's Third New International Dictionary, Unabridged."

References
Reference lists should contain in this order (1) author's last name, initials, (2) title of article or book, (3) name of journal, (4) volume and inclusive page numbers, written 33:156-160, (5) year. For books, the title should be followed by place of publication, name of publisher, and year.

Illustrative Material
Illustrations should be black and white drawings or positive photographs, with neat, uniform, fairly large lettering. A label pasted to the back of each illustration should indicate its number, topic, author's name, and title of article in brief.

Legends should be in complete sentences, numbered, and typed on a separate sheet.

A few color illustrations are authorized.

Tables should be typed on separate sheets. Column headings should show points of similarity; side headings, points of difference.

Previously Published Material
Written permission should be obtained from the publishers and the authors for use of any previously published material (extensive textual matter, illustrations, tables) used. Short verbatim quotations in the text may be used without permission, but should be quoted exactly with the source credited. Copies of permission letters should be submitted with the manuscript.

Editorials
Editorials should be prepared in the same general manner, and should be written in clear, concise language. Length should be about two or three pages typed with double spacing.

Letters
Letters will be published at the discretion of the Managing Editor and consultants.

News
News items should be sent to the Editorial Offices, 1905 North Lamar Blvd., Austin 78705.

Obituaries
Obituaries of deceased TMA members are published if adequate information is received within four months of date of death. When notifying the editors of a member's death, please give the name and address of next of kin.

Policy on Columns
Few contributors recognize beforehand the demands of producing a monthly column that will consistently be of interest and value to the reader. Although a few regular columns appear, it has not been the policy to grant monthly pages to specific committees, councils, or groups.

The Scientific Publication Committee and the editors do, however, encourage committees, councils, and individuals to submit original material which they consider valuable to readers. Should regular publication in column form be deemed appropriate, the Committee and the editors will consider development of a column.

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All material is subject to editing, but authors receive typescripts to check before publication. After the article is sent to the printer, only minimal revision may be made.

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Medicine's men on the Hill

Just who are they? They're the AMA's permanent representatives to the Congress of the United States from the AMA's Washington office.

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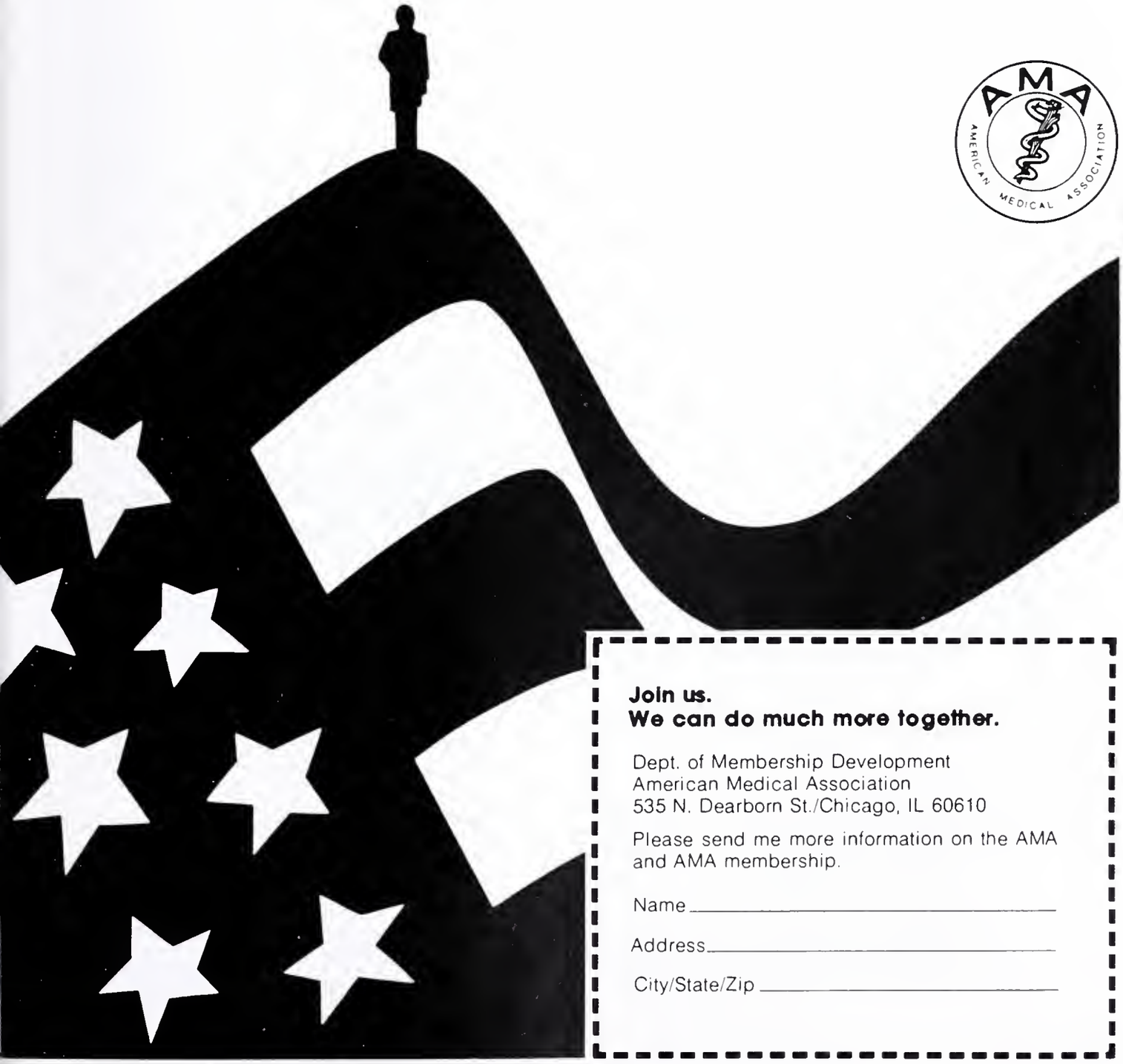

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Medicine in literature

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Medical Newsmakers

GILBERT H. FLETCHER, MD, Houston, has been awarded a gold medal for his achievements in radiation therapy at the annual scientific meeting of the American Society of Therapeutic Radiologists. Dr Fletcher, head of the department of radiotherapy at The University of Texas M. D. Anderson Hospital and Tumor Institute, is consultant to the surgeon general and a member of the cancer program project committee of the National Institutes of Health.

JOHN A. BUESSELER, MD, MS, professor of ophthalmology at Texas Tech University School of Medicine, has been elected chairperson of the residency review committee for ophthalmology. Dr Buesseler has served as founding dean of the medical school and vice president for health affairs.

The Taylor-Jones County Medical Society has presented the Gold Headed Cane award to a past president, MACK F. BOWYER, MD, Abilene. Dr Bowyer is past chairman of the Taylor County Unit of the American Cancer Society, and a member of the American Board of Surgery, Texas Surgical Society, American College of Surgeons, and the Southwestern Surgical Society of Colon and Rectal Surgery.

MARTHA GEORGE, CMA-C, Corpus Christi, has been appointed to the curriculum review board of the American Association of Medical Assistants. She will serve a two-year term as a representative from the medical assisting profession. Mrs George, a clinically certified medical assistant and registered nurse, is employed by JOHN M. ETHRIDGE, MD, and is a part-time instructor at Del Mar College.

ROBERT N. COOLEY, MD, professor of radiology at The University of Texas Medical Branch at Galveston, has been appointed Ashbel Smith Professor in Radiology. Dr Cooley is a member of the American Association of University Radiologists, American Roentgen Ray Society, Texas Radiological Society, New York Academy of Science, and the Inter-American College of Radiology. He is a diplomate of the American Board of Radiology and a fellow of the American College of Radiology.

The chief executive officer of the Travis Clinic in Jacksonville, HUGH F. RIVES, MD, has been elected to serve a three-year term as a member of the board of trustees of the American Group Practice Association.

JOSEPH GOLDSTEIN, MD, a University of Texas Southwestern Medical School research scientist, has been named chairman of a newly structured basic science department at the school combining molecular genetics and biophysics. Dr Goldstein is a co-holder of the Paul J. Thomas chair in internal medicine at the medical school.

The American College of Preventive Medicine has presented the Distinguished Service Award to WALTER C. BARNES, JR, MD, San Antonio, in recognition of his contributions to initial planning for a comprehensive program to meet continuing education needs of physicians in preventive medicine. Dr Barnes is vice president for aerospace medicine of the American College of Preventive Medicine.

HAROLD E. DAYTON, JR, MD, Houston, is the 1978 chairman of the National Conference of Family Practice Residents. Dr Dayton is chairman of the Resident Physicians Section of the Texas Medical Association and served as chairman of the reference committee on education at the annual assembly of the American Academy of Family Physicians.

WHITNEY G. SAMPSON, MD, Houston, is the president-elect of the American Association of Ophthalmology.

Three Texas physicians are among the 15 vice presidents chosen for the 1977-78 year by The Dads' Association at The University of Texas. They are JULIAN MARDOCK, MD, Dallas; ROBERT L. McLEROY, MD, Gainesville; and C. L. PENTECOST, MD, Beaumont.

REUEL A. STALLONES, MD, MPH, dean of The University of Texas School of Public Health in Houston, is the first James Wade Rockwell Professor in Public Health (preventive medicine and epidemiology). Dr Stallones is president of the American Epidemiological Society and a fellow of the American Public Health Association and the American College of Preventive Medicine.

The American Academy of Ophthalmology and Otolaryngology has elected DAVID PATON, MD, Houston, secretary for continuing education in ophthalmology. BOBBY R. ALFORD, MD, Houston, has been elected a councillor of the Academy.

EDWARD M. COPELAND, III, MD, professor of surgery at The University of Texas Health Science Center at Houston and the UT System Cancer Center M.D. Anderson Hospital and Tumor Institute, has been named president-elect of the Association for Academic Surgery. Dr Copeland is a member of the American Gastroenterological Society, The Society of University Surgeons, the Society for Surgical Oncology, and the Texas Surgical Society. He is chairman of the Diet, Nutrition and Cancer Scientific Review Committee of the National Cancer Institute and a member of the board of directors for the Houston chapter of the American Cancer Society.

RAYMOND D. PRUITT, MD, Houston, former dean of the Mayo Medical School, has been named by the AMA Board of Trustees to the Advisory Committee on Graduate Medical Education.

The new president-elect of the Texas Academy of Family Physicians is JAMES FORREST FITCH, MD, McAllen.

ELIZABETH POUNDS, RN, EDD, assistant clinic director of Texas Tech University School of Medicine Health Sciences Center's Ambulatory Clinic, has been elected as a nominee to the American Academy of Medical Administrators. She is a past nursing instructor and head nurse for Methodist Hospital's emergency and operating rooms. She is a member of the American Nurses Association, Texas Nurses Association and the National League of Nursing.

LOUIS E. GIBSON, MD, Corsicana, has been elected chairman of the Statewide Health Coordinating Council appointed by Governor Dolph Briscoe in compliance with the health planning law. CARMAULT B. JACKSON, JR, MD, Houston, has been elected vice chairman of the council.

Before moving to Houston, SAM A. NIXON, MD, director of continuing education at The University of Texas Health Sciences Center, was honored at a reception and appreciation banquet hosted by the Floresville Chamber of Commerce. Dr Nixon received a plaque commemorating his work in the community. The building housing the ambulance units in Floresville has been named the Sam A. Nixon EMS Center. Dr Nixon is speaker of the Congress of Delegates of the American Academy of Family Physicians and chairman of the TMA Council on Communication.

HOWARD K. STRAHLENDORF, PhD, has begun research work at Texas Tech University School of Medicine as the first Fellow of the Tarbox Parkinson's Disease Institute. He will explore the effects of basal ganglia on sensory mechanisms in the central nervous system.

The new president-elect of the American College of Chest Physicians is HAROLD CLIFTON URSCHEL, JR, MD, clinical professor of thoracic and cardiovascular surgery at The University of Texas Health Science Center at Dallas. Dr Urschel serves as director and examiner for the American Board of Thoracic Surgery and treasurer for the Society of Thoracic Surgeons. He is a member of the American College of Surgeons, American Association for Thoracic Surgery, International Cardiovascular Society, American Heart Association, American College of Cardiology, Texas Surgical Society, Texas Thoracic Society and Dallas County Medical Society.

Deaths

Dr Davis

A. L. Alfieri, MD

Anthony Louis Alfieri, MD, 68, of Dallas, died Jan 4, 1977.
Dr Alfieri, a retired pediatrician, was a Dallas resident 38 years. He was born in Brooklyn, NY, and attended Southern Methodist University, Dallas, and Tulane University, New Orleans. He received his MD from Louisiana State University Medical Center in 1935. His internship was at Charity Hospital, New Orleans. He held residencies at Charity and at Bradford Memorial Hospital for Babies, Dallas.
Dr Alfieri served in the US Army during 1942-1945. He was stationed in the United States and England. He attained the rank of Major.
The physician was a past president of the Texas Pediatric Society. He also was a member of the American Academy of Pediatrics, Texas Chapter; American Academy of Pediatrics; Dallas Pediatric Society; American Medical Association; and Dallas County Medical Society.
He was on the staffs of Children's Medical Center of Dallas, Parkland Memorial Hospital, St Paul Hospital, and Baylor University Medical Center. He also was clinical professor of pediatrics at UT Southwestern Medical School.
Surviving Dr Alfieri are his wife, Barbara Alfieri; sons, Felix Alfieri and Jerry Alfieri; and step-son, Bobby Bowen, all of Dallas; daughter, Mrs James Carr, Norman, Okla; step-daughters, Tina Bowen and Janet Bowen, Dallas; sisters, Mrs A. C. Sasser and Mrs Angie Borsella, both of Dallas; and five grandchildren.

G. H. Benzon III, MD

George Henry Benzon III, MD, a Plainview obstetrician-gynecologist, died Aug 6, 1977, in Philadelphia.
Dr Benzon, 65, had practiced in Plainview since 1956. He was a native of Jenkintown, Pa, and was graduated from Hahnemann Medical College in Philadelphia in 1939. He remained in Philadelphia for his internship and residency at Hahnemann Hospital. He practiced in Philadelphia and Lansdale, Pa, before moving to Plainview. He served in the US Air Force from 1941 to 1945.
Dr Benzon was a member of the American Medical Association, Hale-Floyd-Briscoe County Medical Society and the West Texas Obstetricians and Gynecologists Society.
He was a fellow of the American College of Surgeons and a founding fellow of the American College of Obstetricians and Gynecologists.
Surviving Dr Benzon are his wife, Elizabeth Woodward Benzon, Plainview, and sons, Henry C. Benzon, Seattle, and John Benzon, Houston.

H. I. Davis, MD

Hamlet Irvine Davis, MD, 69, died Sept 19, 1977, in Baytown.
Dr Davis, an eye, ear, nose, and throat specialist, had practiced in Baytown since 1936. He was a past president of the East Harris County Medical Society and had served as chief of staff at Gulf Coast Hospital and San Jacinto Methodist Hospital.
A native of Louisville, Ky, Dr Davis was graduated from Rice Institute in 1930, and received his MD from Tulane Medical School in 1934. While at Tulane, he belonged to Nu Sigma Nu medical fraternity and Beta Theta Pi social fraternity.
His postgraduate studies were at the Medical School of New York, Cornell Medical Center, and Tulane and Charity hospitals in New Orleans. His internship was at New York Hospital.
Dr Davis' professional memberships included the American Medical Association, Harris County Medical Society, Houston Otolaryngological Society, Southern Medical Association, and the American Council of Otolaryngology.
Surviving Dr Davis are his wife, Alice Parker Davis, Baytown; daughters, Mrs Eben Hardie, Jr, and Mrs F. Henri Lapeyre, Jr,

both of New Orleans; sons, Hamlet I. Davis III, Baytown, and Herbert Parker Davis, Atlanta; sister, Mrs Donald V. Luby, Houston; brother, William W. Davis, Hallettsville, Tex; and 13 grandchildren.

P. A. Gates, MD

Philip Ainsworth Gates, MD, Austin, died Sept 10, 1977, at the age of 56.
Dr Gates had been associated with the Department of Human Resources since 1964. He was credited with making the case for state rather than federal control of Medicaid programs.
The physician was born in Temple. He was graduated from McMurry College, Abilene, in 1941. He received his MD from Southwestern Medical College in 1944. His internship and residency were at City-County Hospital in Fort Worth. From 1948 to 1964, he was in general practice and orthopedic surgery in Pampa, Tex.
Dr Gates was a member of the American Medical Association and Travis County Medical Society.
Surviving Dr Gates are his wife, Doris Merrill Gates, Austin; son, Dr Philip Edwin Gates, Charlottesville, Va; daughters, Kitty Duckett, Houston, and Mary Burke, Austin; mother, Bertha Gates, St John, Kan; sister, Jane Bandy, St John, Kan; brothers, Charles Gates, Marble Falls, Tex, and Dr J. W. Gates, Denton, Tex; and 3 grandchildren.

J. W. Hofer, MD

Jesse Walter Hofer, MD, a Houston physician for 26 years, died July 18, 1977. He was 66.
A native of Cissna Park, Ill, Dr Hofer was graduated from the University of Illinois. He received his PhD from Yale University and his MD from Northwestern University. His internship was at Evanston (Ill) Hospital. He served residencies at Evanston Hospital and Hines (Ill) Veterans Administration Hospital. He had practiced internal medicine in Houston since 1951.
Dr Hofer's professional memberships included the Harris County Medical Society, American Medical Association, American Heart Association, American Rheumatism Association, Society of American Bacteriologists, and the American College of Physicians. He also was a veteran of World War II.
Surviving the physician are his wife, Ethel E. Erickson, MD, Houston; and daughters, Elizabeth Ann Hofer, Houston, and Jessica Patrice Hofer, Seattle.

Dr Gates

Dr Hofer

L. A. Leavitt, MD

Lewis A. Leavitt, MD, professor and chairman of the physical medicine department at Baylor College of Medicine, Houston, died Feb 5, 1977.
Dr Leavitt, 57, also was co-director of the Rehabilitation Engineering Center, a project co-sponsored by Texas A&M University, Baylor, and the Texas Institute for Rehabilitation and Research. Dr Leavitt was widely known for designing and improving prosthetic parts and other mechanical devices to help the handicapped.
A native of Epping, ND, Dr Leavitt was graduated from Loyola University, Los Angeles, in 1941. He completed his medical education in 1945 at St Louis University School of Medicine. His internship was at Queen of Angels Hospital, Los Angeles, and his residency was at the Veterans Administration Hospital, New Orleans.
Surviving the physician are his wife, Lorraine Hartung Leavitt; daughter, Jeanne Louise Harris; son, Lewis A. Leavitt III; and mother, Florence Leavitt, all of Houston.

RECENTLY DECEASED MEMBERS OF THE TEXAS MEDICAL ASSOCIATION

A.L. ALFIERI
Dallas, 1908-1977

G.H. BENZON III
Plainview, 1911-1977

H.I. DAVIS
Baytown, 1907-1977

P.A. GATES
Austin, 1920-1977

J.W. HOFER
Houston, 1910-1977

L.A. LEAVITT
Houston, 1919-1977

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*Majority of patients evaluated after 2 weeks' therapy. Data on file at Squibb Institute for Medical Research.

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WANTED: ANESTHESIOLOGIST to join growing multispecialty clinic with excellent facilities. New clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-5361.

WANTED: OPHTHALMOLOGIST TO JOIN growing multispecialty clinic with excellent facilities. New clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: INTERNIST, preferably with subspecialties in gastroenterology, pulmonary diseases, rheumatology or cardiology to join growing multispecialty clinic. Excellent facilities in new clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6351.

PHYSICIAN AND PSYCHIATRISTS—general practice, pediatricians and psychiatrists for vacancies in state mental hospitals and state schools for mentally retarded. Salaries: $31,000 to $38,000 plus $1,000 for board certification plus up to $3,000 supplement in certain areas; usual State benefits. Liability protection provided under Texas law. Texas license or reciprocity required. Contact the Personnel Specialist, Texas Department of MHMR, P.O. Box 12668, Capitol Station, Austin, Texas 78711. 512-454-3761. An equal opportunity, affirmative action employer.

NEAR GULF COAST: Several specialties including family practice. Two accredited district hospitals, 1968 additions. Excellent potential to double present staff of 20. Offices available. Great rural place to raise family. Water recreation, hunting. 75 miles west of Houston. Steve Walters, Administrator, Box 910, Bay City, Texas 77414, 713-245-6383.

WANTED: PEDIATRICIAN to join growing multispecialty clinic with excellent facilities. New Clinic building adjacent to new hospital. Many benefits that only a group practice can provide. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

GENERAL PRACTITIONER—FAMILY PRACTICE: Clinic, including lab and x-ray. Join internist and general practitioner in busy practice. Salary and benefits negotiable with subsequent partnership offered. Contact Ribelles Clinic Associates, 9801 Katy Freeway, Houston, Texas 77024. 713-461-0072.

EMERGENCY DEPARTMENT GROUP, HOUSTON AREA, EXPANDING—choice of salary or fee-for-service with guarantee—malpractice paid—Call 713-861-7942 or write Greater Houston Emergency Physicians Association, 625 West 19th, Houston, Texas 77008.

FAMILY PRACTICE—In small city South Central Texas; San Antonio, Austin area. Drawing area 22,000. 50-bed new hospital under construction. Financial assistance available. William B. Watts, Administrator, Gonzales County Hospital District, Gonzales, Texas 512-672-2811.

GENERAL SURGEON: American graduate, preferably just out of residency to do all major surgery for well established clinic. Please reply to Ad-722, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTICE, GENERAL PRACTICE—Wanted immediately to join physician staff in rural community one-hour from Dallas-Fort Worth area. Extremely active practice with good benefits and an opportunity to enter into the corporation. Practice is with physicians clinic, 26-bed hospital, and 42-bed nursing home within the same building complex. Excellent arrangement for family practice. For further information contact Roger E. Marks, M.D., 817-897-2215 or 817-897-4436; Glen Rose, Texas.

INDUSTRIAL PHYSICIAN TO JOIN multispecialty group as an addition to a large industrial department. Some surgical training desired; family practice boards acceptable. Work consists of pre-employment physicals, industrial injuries, and family practice. Salary and partnership negotiable and competitive. Keogh plan available. Adequate time off. Modern clinic facilities. Growing town of 125,000. Send curriculum vitae and references to Harry Ledbetter, M.D., 1518 Tenth Street, Wichita Falls, Texas 76301.

GENERAL PRACTITIONER NEEDED: To work with general surgeon doing GP work. Excellent opportunity for a doctor desiring family practice work. May start with salary of $45,000 per year negotiable. City has population of 9,000 with trade area of 25,000 to 30,000. Contact Chris S. Cruzcosa, M.D., 300 S. 5th Street, Carrizo Springs, Texas 78834. 512-876-5236.

TEXAS, NORTHEAST: Emergency physicians. Immediate openings available in established ACEP oriented group. Positions in several communities available. Prefer career-oriented emergency MDs. Additional training and/or experience required. Flexible schedule, fee-for-service with guarantee and usual fringes including malpractice insurance. Write: Emergency Medicine Consultants, 3500 Gaston Avenue, Dallas, Texas 75246, or call 214-823-6850.

HOUSTON EMERGENCY PHYSICIANS ASSOCIATES has immediate openings for career oriented emergency physicians with surgical or emergency medicine backgrounds. Continuing education required. Teaching and non-teaching positions available in the city limits of Houston, Texas. Our physicians' present salaries are between $50,000 and $80,000 per annum based on tenure and experience. Flexible scheduling to allow for vacations and continuing education. Benefits include malpractice insurance, major medical, life, disability income. Call or send CV: Houston Emergency Physicians Associates, P. O. Box 36949, Houston, Texas 77035; 713-776-1081.

NEED FULL TIME PHYSICIAN at medical facility of Gary Job Corps Center in resort community of San Marcos, Texas. Involvement is 8 a.m. to 5 p.m., Monday through Friday and on call alternate nights and weekends. Fringe benefits include a desirable housing arrangement and prepaid malpractice insurance. Salary upper $30s and negotiable. Contact Dr. M. D. Heatly, 512-395-6570 or at night 392-3044; or Mr. Al Martinez, Hospital Administrator, 396-6422; or write P.O. Box 545, San Marcos, Texas 78656.

INTERNIST—In small city South Central Texas; San Antonio, Austin area. Drawing area 22,000. 50-bed new hospital under construction. Financial assistance available. William B. Watts, Administrator, Gonzales County Hospital District, Gonzales, Texas. 512-672-2811.

TEXAS PRACTICES. Economic and professional climate excellent. Have requests from physicians in Texas communities for additional physicians, usually in the same field. City suburbs, small and medium size towns. Attractive financial guarantees. No fee to physician candidate. Please write with C.V. and preferences to Sanford Smith, Professional Practice Management, Inc., 1102 Kingwood Drive, Humble, Texas 77339.

GENERAL PRACTITIONER TO DIRECT ALCOHOLISM PROGRAM. Building a better and more dynamic program in state hospital. Ideal family living town of 30,000—good schools, recreation, mild west Texas weather. Salary $37,000 to $40,000. Texas license required. Call or write: Douglas Cheney, Personnel Director, Big Spring State Hospital, Box 231, Big Spring, Texas 79720. 915-267-8216.

CHILD PSYCHIATRY RESIDENCY may be taken before or after Adult Psychiatry training. Academic program in child development, family therapy, genetic and metabolic disorders, behavior therapy, group therapy, psychopharmacology and ethology. Basic clinical orientation in child development with intensive individual supervision in psychoanalytic and eclectic modalities and pediatric neurology. Research opportunities in genetic and metabolic disorders, child development, linguistic anthropology, community services, and other fields. Excellent opportunities in teaching, administration, inpatient and outpatient clinical programs. New 50-bed inpatient unit for children. Liaison with graduate schools, medical school and community programs. Stipends: first year, $15,000; second year, $16,000; third year, $17,000; fourth year, $18,000. Contact Anthony P. Rousos, M.D., Director of Residency Training, Austin State Hospital, 4110 Guadalupe, Austin, Texas 78751.

EXPANDING MEDICAL CLINIC has opening for internal medicine, OB-GYN and family practice. Apply: D. McCann, 2615 North Oregon, El Paso, Texas 79902; telephone 915-532-5232.

PRACTICE in the most sophisticated Texas city. Enjoy the small town atmosphere. Explore Pleasant Grove Hospital, first medical facility ever for 170,000 citizens in Southeast Dallas County. 172-bed hospital, now open, adjacent to professional building due completion September. Explore the possibilities with A. D. Hethcock, 214-398-1531.

PSYCHIATRIC RESIDENCY IN APPROVED three-year program. Effective connections with universities, medical schools, private clinics and community centers. Outstanding faculty and programs. Stipends with Texas license are $15,000, $16,000 and $17,000 per year. In addition, now offering residency in child psychiatry. For full information, write to: Anthony P. Rousos, M.D., Director of Residency Training, Austin State Hospital, 4110 Guadalupe Street, Austin, Texas 78751.

CARDIOLOGIST - ONCOLOGIST/HEMATOLOGIST - GENERAL INTERNIST & PULMONARY medicine specialist needed to add to our 9-doctor IM group practice. We are a referral practice in new office, with new equipment adjacent to a private hospital. The hospital has a new Cath. Lab and CT scanner. Attractive financial incentive plan. Send CV to Robert L. Hatcher, M.D., Valley Diagnostic Clinic, 2121 Pease St., Harlingen, Texas 78550; 512-425-7200.

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POSITIONS VACANT FOR TEXAS: Surgeon with thoracic surgery training wanted to join a busy solo practice summer of 1978. Opportunity to do general surgery while building up a thoracic practice. Board eligibility in general surgery required. Eligibility for thoracic surgery preferred. Please reply to Ad-735, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTITIONER AND PEDIATRICIAN NEEDED to join multi-specialty group in west Texas city of 175,000. New clinic and hospital facilities. Top salary with partnership opportunity. University Medical Surgical Clinic, 6602 Quaker Avenue, Lubbock, Texas 79414.

INTERNAL MEDICINE/CARDIOLOGY—64 bed hospital in East Texas area with new fully equipped cardio-pulmonary department. Please contact Paul Bennett, Administrator, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647; 214-845-2281.

BOARD CERTIFIED FP NEEDS ASSOCIATE for active practice. Across street from 160 bed hospital. Own lab and x-ray. All specialties available, full privileges. College town, deep east Texas. Forests and lakes for recreation. Fast growing area with diversified economy. Terms negotiable. Ralph C. Bailey, M.D., 1209 N. Mound Street, Nacogdoches, Texas 75961; telephone 713-564-3731.

ARE YOU TIRED OF THE FRUSTRATIONS of pediatric practice and are interested in practicing allergy under a Board-Certified Allergist? If so, write P.O. Box 1761, Austin, Texas 78767. Please enclose a curriculum vitae.

PRACTICE OPPORTUNITIES ACROSS THE STATE, in cities and towns, salary or fee for service. Attractive financial arrangements. Assistance with red tape. Send resume and preferences to: Texas Doctors Group, P.O. Box 177, 500 International Life Building, Austin, Texas 78767.

TEXAS, IRVING: EMERGENCY PHYSICIANS. 213 bed hospital nestled in a community just outside Dallas (population 117,000). Home of the Dallas Cowboys. Very active hospital staff with specialty and general backup. Positions available for full time career oriented MDs. Salary negotiable. Provision for standard fringes including malpractice insurance. Send CV to Professional Emergency Service Association, 913 N. Bishop, Dallas, Texas 75208. Call 214 943-4768.

TWO PRIMARY CARE PHYSICIANS NEEDED to serve a rural, medically underserved, growing resort and retirement area of 8,500+ people. Must have MD or DO, Texas license and strong interest in rural, family and gerontological health problems. Contact, Project Director, San Jacinto County Health Services, Inc., P.O. Box 644, Coldspring, Texas 77331. 713 653-4554. An equal opportunity employer.

MOTLEY COUNTY: NEED ONE OR MORE FAMILY PHYSICIANS. Trade area approximately 13,000; rural area, primarily farming and ranching. One physician needs relief and backup. 12-bed hospital; clinic furnished to physicians free, with guaranteed salary. If physician agrees to three year contract, clinic and equipment offered to physician at wholesale or below at end of contract. Motley General Hospital, Drawer A, Matador, Texas 79244.

TEXAS, SAN ANTONIO based emergency physician group expanding. Immediate openings for career oriented emergency physicians in several communities. Will consider part-time, flexible schedule. Call or write: Emergency Physicians Associates, 730 North Main, Suite 624, San Antonio, Texas 78205; 512-222-0746 or 224-9067.

FAMILY PRACTICE. One or two physicians to join me in an incorporated practice. Terms negotiable. Excellent facilities. Raymond Benski, M.D., D.A.B.F.P., F.A.A.F.P., Family Clinic, P.A., 1323 South 27th Street, Nederland, Texas 77627; call collect 713-722-0481.

TEACHING AND CLINICAL FACULTY POSITIONS (full-time, salaried) available in family practice and internal medicine (general) with medical research and teaching institution (non-government). No research required. Instructor and assistant professor levels. Salary and attractive fringe benefit program, vacation, sick leave; please forward curriculum vitae to Ad-761, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST WANTED to assume instant busy practice in East Texas city of 65,000; referral center. Available June 1978. Please reply to Ad-763, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GULF COAST LOCATION. PORT LAVACA, TEXAS—Need family practitioners, specialties. Friendly, growing city. Modern accredited 75-bed hospital. Three OR's, two delivery, five-bed ICU. Major industries here, excellent medical benefits. Patient potential for double present eight physicians. Excellent family location. Outstanding fishing, hunting, water sports. Convenient to metropolitan areas. Contact: Garney B. Scott, Chairman-Champ Traylor Memorial Hospital Physician Search Committee, c/o Aluminum Company of America, Point Comfort, Texas 77978.

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PHYSICIANS WANTED—Growing hospital in progressive East Texas town near metroplex needs ambitious physicians to join staff. Contact Paul Bennett, Administrator, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647. Telephone 214 845-2281.

PEDIATRICIAN OR FAMILY PRACTITIONER. Buy retiring physician's home and assume six-figure practice immediately. No further investment required. Please reply to Ad-767, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FOURTH PHYSICIAN to join family practice group. Clinic integrated part of facility with 40 acute, 44 long term beds. Unique set-up, no buy in, no junior partner status, guarantee available. Fine small town 30 miles from Lubbock. You need to investigate this to really appreciate it. Contact Ray W. Freeman, M.D., Hugh H. Wilson, M.D., Gordon Russell, Hi-Plains Hospital, 203 West 4th Street, Hale Center, Texas 79041; 806 839-2471.

INTERNIST NEEDED—Certified or board qualified internist to do general internal medicine with eleven members of steadily growing, multi-specialty practice. Clinic adjoins new, 77 bed, Hill Burton JCACH with recently expanded CCU/ICU to 8 units. Excellent climate, good fishing and hunting, new golf course and skeet range and close to metropolitan areas of Texas. Suggest salary at first with rapid advancement to director/owner in fully incorporated medical association. Send curriculum vitae. Please contact Van D. Goodall, M.D., Clifton Medical and Surgical Clinic Association, Clifton, Texas 76634. Telephone 817 675-8621 or home phone 675-3113.

WANTED BOARD ELIGIBLE FAMILY PRACTITIONERS or internists for established clinic in Northeast Dallas. Excellent facilities including lab and x-ray. Join five other GP's in busy practice. Salary and benefits negotiable with subsequent partnership offered. Please reply to Ad-771, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL INTERNIST AND/OR GENERAL SURGEON. Board eligible or board certified. To join a 12-man multispecialty group. Guaranteed salary and no expenses the first year. Full participation second year. Excellent emergency coverage, recreation area, and 60 minutes from Dallas. 250,000 population drawing area. Good hospital facilities available across the street and 15 minutes from the clinic. If interested, send CV c/o George F. Erzinger, Clinic Manager, P.O. Box 1338, Sherman, Texas 75090.

Situations Wanted

BOARD CERTIFIED INTERNIST, 32, with gastroenterology subspecialty, seeking group, hospital or solo practice with first year income guarantee. Available July 1978. Write: Rajkumar Warrier, M.D., 68-A Manhattan Court, Brooklyn, New York 11235.

WANT TO BUY—Mexican-American general practice in Houston. Contact M. G. Mater, 5353 West Alabama, Suite 502, Houston, Texas 77056.

BOARD ELIGIBLE GENERAL SURGEON, 33, good experience trauma, orthopedics, vascular surgery. Desires to relocate. Bilingual Spanish-English. Prefers associate or group practice. Please reply to Ad-757, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST/ONCOLOGIST. 33, ABIM eligible. Seek private practice (solo, group, partnership, hospital based) or full time position as primary care physician (general internist) with or without oncologic referrals. Any area. Prefer some financial guarantee to start with but not necessarily. Available 7/78, finishing university training. Licensed in TX/NJ/DC. Please reply to Ad-758, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

SEEKING TEXAS LOCATION. P.J. Reddy (male), 40 years old. Psychiatry. M.D., D.P.M., F.R.C.P.(c), A.B.P.N., 10 years. Widely experienced. Eclectic. Looking for position at university level or in practice. Fully licensed in Texas and few others. P.V. Reddy (female), 35 years old. OB-GYN. M.D., M.R.C.O.G. Passed Part I AB OB-Gyn. In practice 4 years. Looking for position in solo or group. Fully licensed in Texas. Contact Dr. P. J. Reddy, 343 Greenwood Drive, Petersburg, Virginia 23803; phone 804-861-9311 home; or 804-861-7331 office.

CARDIOLOGIST-INTERNIST. 34. FMG. Fully USA trained. Board eligible. Expertise: echo, stress testing and all aspects of clinical cardiology. Available June 1978. Please reply to Ad-760, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PULMONARY INTERNIST—32. ABIM and pulmonary board eligible (Flex). Trained in all aspects of pulmonary medicine including respiratory intensive care unit and fiberoptic bronchoscopy. Seeks a solo or hospital based practice. Prefers to practice and settle down in Texas, in a moderate sized town of 80-150,000 population, and nice community. Available from July-Sept. 1978. Please reply to Ad-764, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTITIONER with obstetrics and pediatric experience wishes to purchase established practice or clinic in Texas. Please reply to Ad-762, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

CANADIAN UROLOGIST 48. Six years postgraduate training (5 Toronto and 1 Duke U.) Fifteen years consulting practice urology. University appointment spinal cord service. Prefers associate, group, or institutional practice; city of 100,000 or more. C.V. on request. Texas license pending. Dr. W. H. McCrae, 672 Brant Street, Burlington, Ontario, Canada L7R 2H3; 416-632-2230.

PEDIATRICIAN, passed written boards, board eligible in pediatric endocrinology interested in general pediatric practice either solo or with a group. Licensed in the state of Texas. Available now. Please reply to Ad-765, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

CANADIAN TRAINED ANESTHESIOLOGIST, 11 years experience, wishes to do one month locum with the intention of permanent placement later. Please reply to Ad-766, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

Exceptionally well trained and experienced GP interested in move to Texas. Excellent references. Availability flexible, but would like to give minimum of three months notice to current position. Sunbelt Physician Placement Service, 5500 N. Braeswood, No. 177, Houston, Texas 77096. 713 729-6068.

CANADIAN PEDIATRICIAN. 45. Six years postgraduate training. Fifteen years experience as consultant (neonatology, allergy, learning-behavior, emergency). Also part-time medical director, 500 bed general hospital last five years. Prefers association, group or institutional practice in city about 100,000. CV available. Eligible Texas license. F. B. Roberts, M.D., FRCP (C), 3032 Woodward Avenue, Burlington, Ontario, Canada L7N 2M2; 416-637-0984 or 637-0352.

ANESTHESIOLOGIST, 33 years, FMG, FLEX, trained in university hospital. College certified, completed written part of American Board. Doing private practice in Houston. Tired of urban surroundings, trying to relocate in rural community. Prefer solo or group practice. Available April 1978. Please reply to Ad-768, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PHYSICIAN ASSISTANT: 30, seeks position with group practice in oncology, cardiology, family practice or psychiatry. Dallas/Fort Worth, Austin or Houston areas. 1977 graduate of PA program at UT Health Science Center at Dallas. 7 years RN experience in critical and phychiatric care. Excellent references. Inquiries to Ad-769, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

39 year old, FMG, cardiology board eligible, trained in invasive (Judkins') and non-invasive, wishes to associate or join a group in city or suburban locations. Willing to join internists. Please reply to Ad-770, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

OPHTHALMOLOGIST. 31, board certified. Available on completing military obligation July 1978. San Antonio residency. Associate, partnership or group. Roy Whitaker, M.D., 102 Pinehurst, Enterprise, Alabama 36330; 205 347-4068.

INTERNIST—HEMATOLOGIST—ABIM, 30, seeks group, hospital-based position in general internal medicine and/or hematology. Prefer to be close to Dallas, Austin, Houston, San Antonio areas. Available 7/78. Please reply to Ad-772, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

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OFFICE SPACE IN DALLAS — Office suites still available one block from Baylor Hospital in new Medical Center Building, 3801 Gaston Avenue, Dallas, Texas. Pharmacy, laboratory in building. Generous allowance for office improvements. Planning and layout available without cost. Contact Joe Mistrot, (214) 328-2761, or write P.O. Box 18237, Dallas, Texas 75218.

AUSTIN—NEW PROFESSIONAL PARK. Int. Med., GP, FP, Peds, OB/GYN, ENT, Radiologist to associate in group setting for solo practice. University town, new hospital. Cannon Professional Park, 1110 William Cannon Drive, Austin, Texas 78745. Telephone 512-451-8484 or 512-444-1954.

CORPUS CHRISTI, TEXAS: FOR LEASE 1500 sq. ft. clinic space. 60% furnished. Prefer FP or compatible specialist. Willing to provide some financial backing to help right physician. Please submit curriculum vitae and desired financial arrangements: Eugene L. Brown, Jr., M.D., 5705 Gollihar, Corpus Christi, Texas 78412; 512 991-8211.

HOUSTON general practice located in southwest Houston. New practice in prestige medical center. Doctor leaving state. Also has home for sale located three blocks from practice. Practice price $25,000. Home $115,000. For information contact Professional Practice Services, P.O. Box 36817, Houston, Texas 77036; phone 713 771-5011.

MEDICAL BUILDING in San Antonio for sale or lease. 2000 sq. ft. medical clinic in 7 year old building at 1827 Bandera Road. Suitable for all primary care physicians and possibly for two physicians at the same time. Leasing agreement at 30¢ per sq. ft., to include utilities and janitorial service. For information call Irwin Kurtz, M.D., 512 696-4233 or Pete Cantu, Realtor, 512 736-4296 or 512 695-8466.

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Editorials

HOME HEALTH AGENCIES—— ANOTHER PHYSICIANS' DILEMMA!

After reading scores of government documents, laws by Congress, and rules by federal regulatory agencies, I want to help enlighten my colleagues as to what the laws say and about our responsibility as physicians to our patients as well as to the taxpayers regarding home health agencies.

Some rather unpleasant discoveries regarding the local home health agency prompted me to do some reading and then some writing:

The Situation: Post-hospital home health services of up to 100 visits—during the one-year period described in section 1861 (n)—after the beginning of one spell of illness and before the beginning of the next illness is a part of the original Medicare law of July 30, 1965. This legislation has been amended almost every year through Oct 30, 1972, and modified by each secretary of HEW.

Originally, post-hospital home health services were to be received by a patient after a three-day stay in a hospital or extended care facility. Modifications by the secretaries of HEW now allow anyone who is eligible for Medicare or Medicaid benefits, or both, to be eligible for home health services. Originally the plan of treatment had to be implemented by a physician within 14 days of the discharge date; this too has been modified. Originally the method of payment for home health services was to be made from the Medicare Sub Part A (hospital reimbursements). Again, this has been modified so that payment may be made from either Sub Part A or Sub Part B of Medicare-Medicaid payments.

100 Visits: Medicare or Medicaid (the taxpayers) pays the "total actual cost" of up to 100 visits per year of part-time care for any illness for each of the following services: skilled nursing care (RN or LVN), nurse's aide care, physical therapy, speech therapy, teaching hospital interns' or residents' house calls, certain social medical workers' visits, certain in-hospital procedures not normally available in a patient's home (less a specified deductible) where a patient is treated as an outpatient, and even certain chiropractic "adjustments."

Plan of Treatment: A plan of treatment must be implemented under the supervision of a physician who is treating the patient and is knowledgable about the patient's current condition. This plan of treatment spells out specifics and frequency of visits, and the type of visits that the patient needs (skilled nursing care, nurse's aide, physical therapy, speech therapy, or personal care). *Periodic review of the plan of treatment as conditions dictate and at least every 60 days is mandatory. Also, a new plan of treatment is required for each new illness, each new hospitalization, or new extended care stay.*

The Dilemma: We (or our patients) receive *less* than our actual fee for medical services rendered under Medicare or Medicaid, but there is no such reduction for providers of home health services. Physicians in our area were able to obtain the "actual cost" of a skilled nurse's home health visit. To our surprise, we discovered that those charges exceeded our own charges for a house call. Mileage reimbursements at top dollar are also being paid to the home health agencies.

We found that one patient in a neighboring community had been seen by the home health nurse for up to eight months under the original plan of treatment which had been implemented by a physician in still another neighboring community after only one visit. That particular patient had been hospitalized three times by one of our local physicians during that eight-month period, and that physician discovered by accident that the home health visits were being made. The round-trip charges for mileage were for greater than 100 miles from our community to the patient's home.

A home health agency may have many units or sub-units, or both (the one in our area extends from Lubbock, at least, to San Antonio). There are no geographical or regional boundaries encouraging cooperation between home health agencies. Therefore, a home health nurse in one community may visit a patient in another community, at will, so long as there is a bona fide plan of treatment. It is common practice, in our area, to seek out a physician who will authorize home health visits when a regular physician shows reluctance to implement a plan of treatment.

The "actual cost" factor can be obtained from health agencies, but the salaries for RNs or LVNs or for executives in the organization cannot be obtained.

Since HEW does allow payment for home health services from physicians, supplemental Sub Part B of Medicare or Medicaid, or both, this makes it appear that physicians are being paid more of the Medicare or Medicaid dollar.

The Solution: Since Congress seems unwilling to correct or remove bad laws, and since each succeeding secretary of HEW seems unable to write regulations to remove or correct "abuse-prone" areas of previous laws, we *physicians* are ultimately responsible for control of any possible abuses relating to home health services. I think we should do the following:

First: Never sign a plan of treatment for home health visits without careful attention to it and honest evaluation of whether or not the patient actually needs skilled nursing care. Personal care may do just as well. Many home health agencies, however, are not set up to render this unprofitable service.

Second: If the patient's condition changes so that the original plan of treatment is no longer applicable, change the plan of treatment or eliminate the home health visits in a timely fashion.

Third: Try to avoid authorizing home health visits for your patients living in a neighboring community.

Fourth: Find out the "actual cost" figures of the home health agency in your area and compare these to your own house call charges.

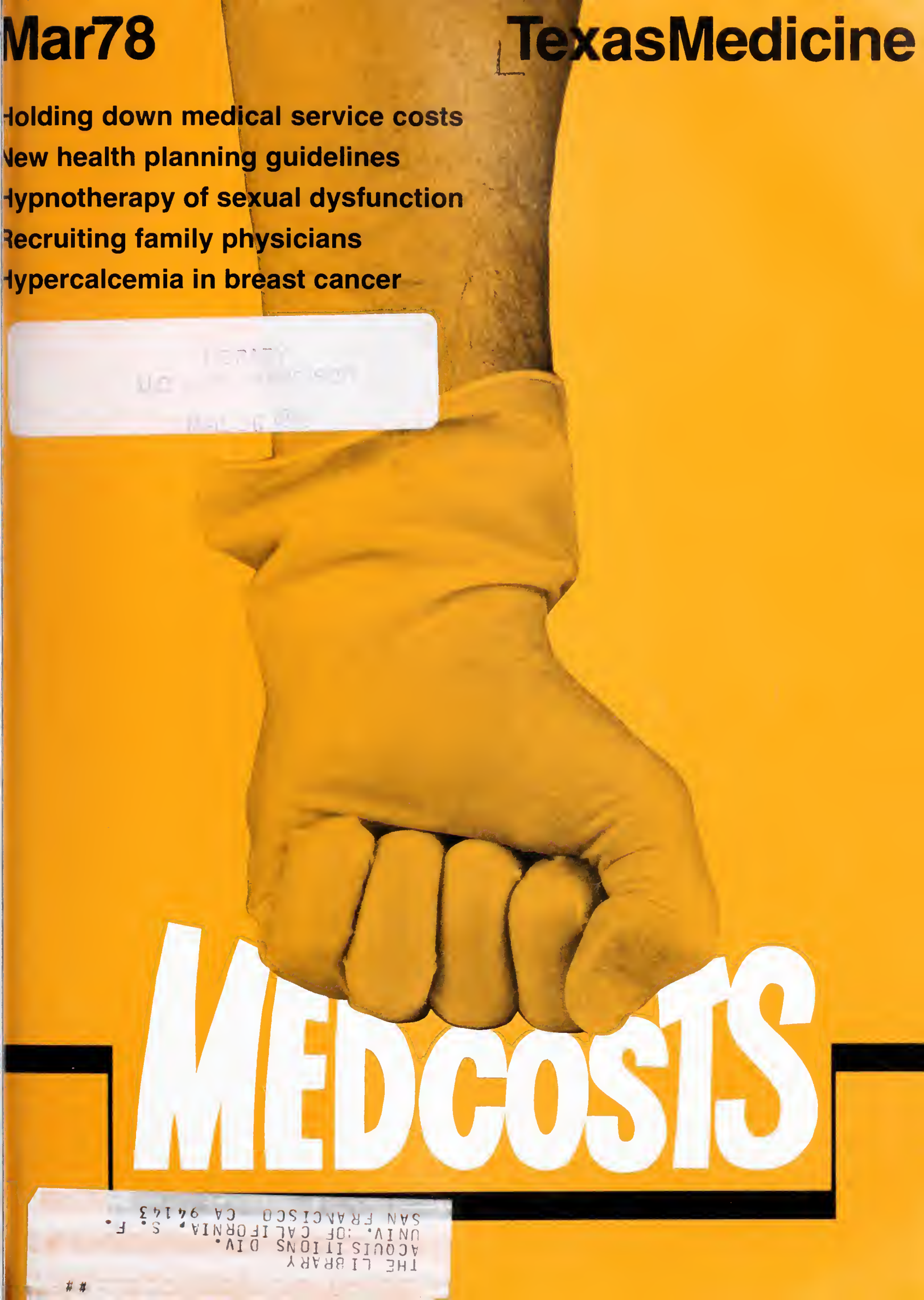
Fifth: Write your congressman and the secretary of HEW and urge reforms of this legislation urging correction of the loopholes that allow expensive and sometimes misleading practices.

Theron C. Hawkins, MD, Kerrville.

Mar78

TexasMedicine

Holding down medical service costs
New health planning guidelines
Hypnotherapy of sexual dysfunction
Recruiting family physicians
Hypercalcemia in breast cancer



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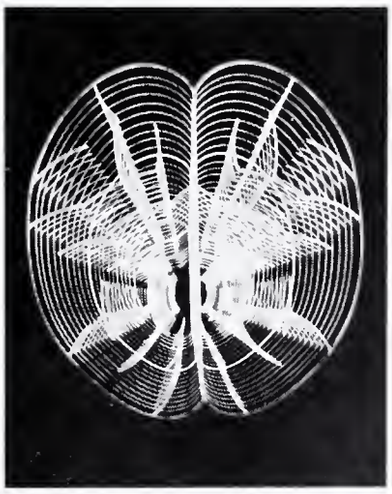

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On The Cover

Concern about medical care costs is increasing—and the Texas Medical Association is facing the problem squarely. The Association has begun by embarking on present and long-range programs to contain medical care costs and by calling on every Texas physician to help. More about the Texas program on page 83.

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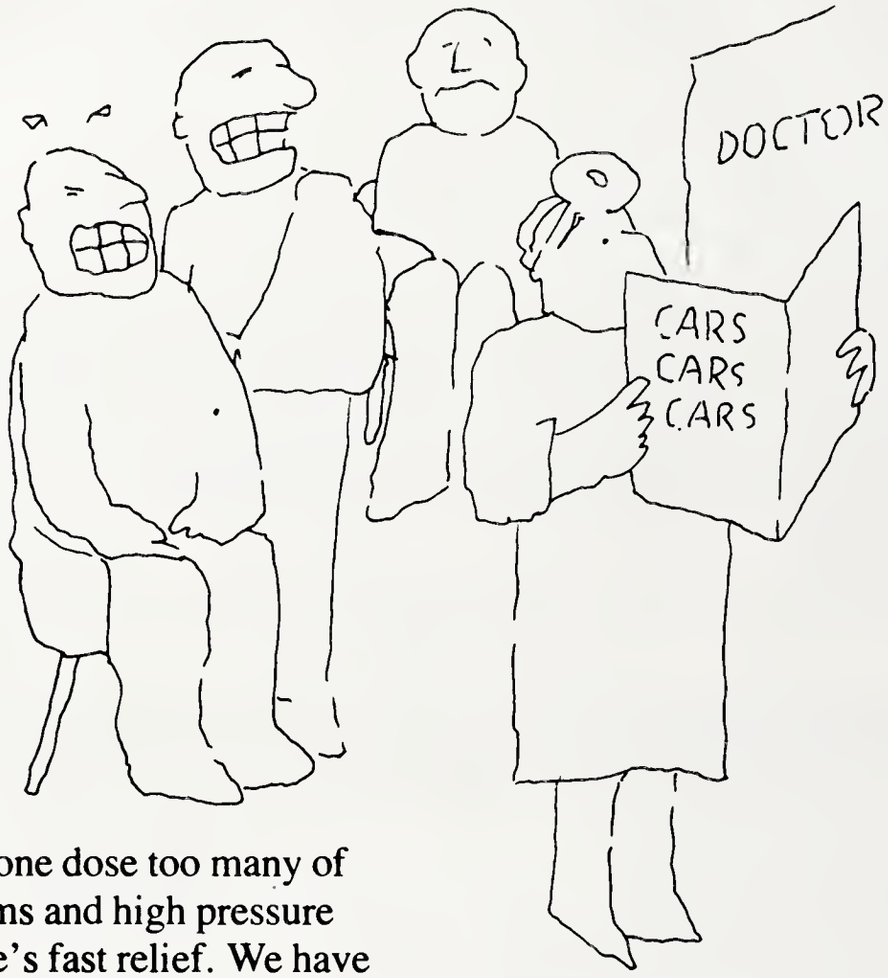

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News in brief

TMA 1978 priorities

Cost containment heads the list of the Texas Medical Association's 1978 priorities. The priorities were adopted by the TMA Executive Board at the Jan 22 meeting in Austin. Other priorities include development of access to health care, involvement in all levels of health planning, development of physician hospital relations, and development of positive communications and public education programs about the medical profession and the health care system . . . 7

National health insurance

Last October, the US Dept of Health, Education, and Welfare conducted hearings, including one in Houston, to assess public opinion on national health insurance. Now, HEW has published its distillation of the people's voice, saying that the nation wants a national health insurance system to "build on the strengths of the existing system, reflect the lessons learned in other countries having mature health insurance programs, develop approaches for coping with the current and anticipated cost pressures, and stress preventive care and health education efforts." . . . 13

AMA's Principles of Medical Ethics

The American Medical Association is seeking comment from American physicians regarding proposed revision of the AMA's Principles of Medical Ethics. The amendments proposed by the AMA Judicial Council are intended to modernize the language of the Principles and to clarify their meaning. The changes are on the agenda of the AMA House of Delegates for the Annual Convention in June 1978 in St Louis . . . 14

JCAH standards

A significant revision which lists categories of specimens exempt from pathological examination has been adopted by the Board of Commissioners of the Joint Commission on Accreditation of Hospitals. The JCAH board also has adopted revised standards for hospital emergency services . . . 16

Health planning guidelines

Health, Education, and Welfare Secretary Joseph Califano has released the government's second version of the health planning guidelines, saying that the revised rules contain "enough flexibility to be fair, and are tough enough to be effective." Final regulations will be issued March 6. The revised guidelines propose major standards including a maximum of four hospital beds per 1,000 people, at least a 75% average occupancy rate and at least 1,500 births annually for hospitals that provide care for complicated obstetrical problems, and an average annual occupancy rate of at least 80% for hospitals in a Health Service Area . . . 23

News in detail

Cost containment heads TMA's 1978 priorities

Cost containment heads the list of the Texas Medical Association's 1978 priorities. The priorities were adopted by the TMA Executive Board at the Jan 22 meeting in Austin.

The Association will work to develop an effective, positive program to contain medical care costs without sacrificing quality of care.

Texas physicians also will continue to develop access to health care in Texas. Adequate numbers of trained physicians must be available within each community, said John M. Smith, Jr, MD, TMA president. TMA's Task Force on Access to Health Care is developing a brochure to assist communities in recruiting physicians, and other Association programs are being developed.

TMA will continue to be active in local, state, and national levels of health planning. Considerable progress was made in 1977 in organizing physician and auxiliary participation in the health planning processes, Dr Smith said.

National health insurance is another area where TMA will work to inform the public on the key issues involved. "We need broad public support to ask Congressmen to prevent passage of a federally controlled national health insurance program," Dr Smith said.

The TMA will continue to represent Texas physicians at all organizational levels whether the issue is physicians' fees, professional liability, education, medical technology, hospital staff relations, reimbursement, or public health. The TMA will work to counter assaults on physicians' professionalism and to develop medical ethics and discipline.

Resolution of the professional liability crisis was TMA's first ranked priority in 1977. In 1978 the Association plans activities in the areas of risk control, physician countersuits, and possible establishment of a self-insurance trust. Monitoring of existing coverage programs, liaison with state panels, and analysis of the impact of HB 1048 will also continue.

TMA will work to develop physician hospital relations. TMA members have a special responsibility to represent the best interests of the profession and the patients in dealings with hospital administrations and boards, Dr Smith said.

In 1978, the TMA will continue to mantain effective liaison with HEW and Congressional leaders, be alert to political developments, and be prepared to help implement the Texas Institute for Medical Assessment's proposed professional standards review organization program should that option become available.

TMA will give greater attention to the ways medical care is being delivered and inform members about the various medical practice arrangements ranging from sole proprietorships to group practices.

The Association will develop positive communications and public education programs about the medical profession and the health care system.

Much of the future of medicine is tied to the legislative process, Dr Smith said, and in 1978 TMA will continue its legislative activities. "We must intensify all of our legislative efforts, including greater attention to federal legislation, direct involvement of special societies in our review process, and the solicitation of support from other medical and non-medical organizations," Dr Smith said.

The TMA will also work to develop its continuing medical education program for physicians.

The 1978 TMA priorities will be referred to boards, councils, and committees at the March 12 TMA Executive Board meeting in San Antonio.

TMA Executive Board will meet March 12 in San Antonio

The TMA Executive Board will meet Sunday, March 12 at 9:30 am in the Navarro Room of the St Anthony Hotel in San Antonio.

Agenda items for the meeting include reports on TMA's cost containment activities, a report from the committee on specialty society officers, and referral of TMA's priorities for 1978.

AMA House of Delegates will consider medical care report in June

The AMA House of Delegates will consider the report of the National Commission on the Cost of Medical Care at its meeting June 1978 in St Louis.

The report, released in December, includes 48 recommendations from the 27-member commission composed of health care providers, insurers, and consumers. Max Parrott, MD, former AMA president, served as chairman of the commission.

The commission was established by the AMA in October 1975 as a free standing, independent body. Its function was to bring together key individuals in medicine and other segments of society for an objective evaluation of the health care cost environment and the development of recommendations as to the manner in which health care costs might be restrained.

The commission's findings are not AMA policy statements, said Robert B. Hunter, MD, chairman of the AMA Board of Trustees.

While the commission's pronouncements are its own, they fulfill an important function, Dr Hunter said. They provide a starting point for medicine's own objective examination of the cost issue—the most comprehensive overall examination conducted under the leadership of the AMA since 1964. Taking into account the AMA's ongoing research into the attitudes of the public and the medical professions, the AMA Board of Trustees intends to carefully review and measure each of the commission's recommendations against the parameters of current medical practice and against society's needs.

For example, Dr Hunter said, the commission report suggests an opportunity for the health insurance industry, providers, and the government to critically reexamine the regulatory process and its impact on health care.

Dr Hunter urged medical society members to consider the report's recommendations.

"There are bound to be misunderstandings about the intent and impact of a report of this kind, and I hope that you will join with us in promoting understandings of the context in which the national commission's report has been presented.

"All 48 recommendations deserve careful review, not solely in the context of present policy, but in the more important context as to whether or not our existing policies still meet the test of time and today's circumstances. Responses should be directed to individual recommendations, and they may be submitted directly to the AMA Board of Trustees. Those societies represented in the AMA House of Delegates also have the option of submitting responses in the form of resolutions to be considered by the House in June," Dr Hunter said.

Any questions about the national commission's report or a related inquiry should be sent to James H. Sammons, MD, AMA Executive Vice President, AMA Headquarters. A comprehensive summary of the commission's recommendations was included in the January issue of *Texas Medicine*.

HEW launches anti-smoking drive

Secretary of Health, Education, and Welfare Joseph Califano has announced a stepped-up government campaign against cigaret smoking.

Most of the effort will be to increase public awareness of the hazards of smoking, but Califano, an ex-smoker, has asked the US Treasury Dept to "examine a range of possible measures, including a general increase in the federal excise tax on cigarets and a graduated tax according to the tar-nicotine content of cigarets."

Califano also asked the Federal Trade Commission to "consider recommendations to strengthen warnings on cigaret packages and in advertisements and to empower the federal government to set maximum levels for tar, nicotine, and carbon monoxide in cigarets."

He also requested major providers of health, fire, life, and disability insurance to "consider offering special premium discounts and other advantages to nonsmokers, so that they will no longer have to bear so heavy a part of the enormous cost generated by smokers."

The HEW Secretary announced that the Food and Drug Administration is revising the patient labeling of oral contraceptives, and adding a prominent warning against smoking. The warning will read: "Women who use birth control pills should not smoke."

Califano also said he would ask the Food and Drug Administration "systematically to investigate the interaction of smoking with other therapeutic drugs, so that users who smoke can be made aware of the special dangers they face."

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More than 600 attend TMA's January conference

More than 600 physicians and guests attended the winter meeting of the Texas Medical Association Jan 21 in Austin.

Guest speakers included Ronald A. Livingstone, MD, Houston; J. Alexander McMahon, president, American Hospital Association; Rep Bill Archer, Houston, Seventh Congressional District of Texas; and Archie T. Johnson, Jr, MD, a member of the AMA Special Ad Hoc Committee on Health Planning.

Features of the weekend included the 1978 Conference on Legislation and Medical Service, an orientation program for new and provisional TMA members, special meetings of the officers and specialty societies and hospital chiefs of staff, and meetings of 50 boards, councils, and committees.

National health insurance, hospital cost containment, access to health care, federal regulations, and professional liability insurance all highlighted the winter meeting.

National health insurance

Encounters with the Canadian and United Kingdom systems of health care leave no doubt that the American medical profession and taxpayer should not even entertain the thought of a universal national health insurance system on grounds of sheer value for money, said Ronald A. Livingstone, MD, Houston. A native of Great Britain, Dr Livingstone received his education and training in Belfast, Northern Ireland. He later practiced and taught in Winnipeg, Manitoba.

Truman Blocker, Jr, MD, acting president of the UT Health Science Center in Houston, goes over his notes before speaking at TMA's Conference on Legislation and Medical Service in January.

"At the patient level, free availability of medical care invariably leads to overuse and abuse. It has done so in Britain and in Canada. Health care costs therefore escalate and become a much more expensive proposition," Dr Livingstone said.

"The American public must be made aware that unless they are to be taxed out of existence a deterioration in the quality and quantity of useful services must inevitably follow the introduction of any such government controlled program," the Houston physician said.

Truman Blocker, MD, acting president of The University of Texas Health Science Center at Houston, told the audience that a national health scheme is doomed to failure without lowering the present standards of medical care back to the care of 20 years ago.

"At the present, I am of the opinion that there is no documented demand for a federally controlled health delivery or insurance system. If the public realized the tax and delivery implications, the people would demand that the trend to federalize health care be halted," Dr Blocker said.

Results of Britain's national health insurance system show that it cannot meet all the demands placed on it, said Joseph Merrill, MD, executive vice president for planning and development of Baylor College of Medicine, Houston. Patients awaiting admission to a hospital were recently numbered at 588,483—the highest since 1948. Dr Merrill took a university sabbatical leave in 1976-77 to study in London the relationships between universities and the national health service.

With the administrative growth, there are now 30% more administrators in Britain than there are practicing physicians. In 1965, there was one administrator for every ten beds, now there is one for every five. A patient on average is allotted four minutes to visit with the doctor, Dr Merrill said.

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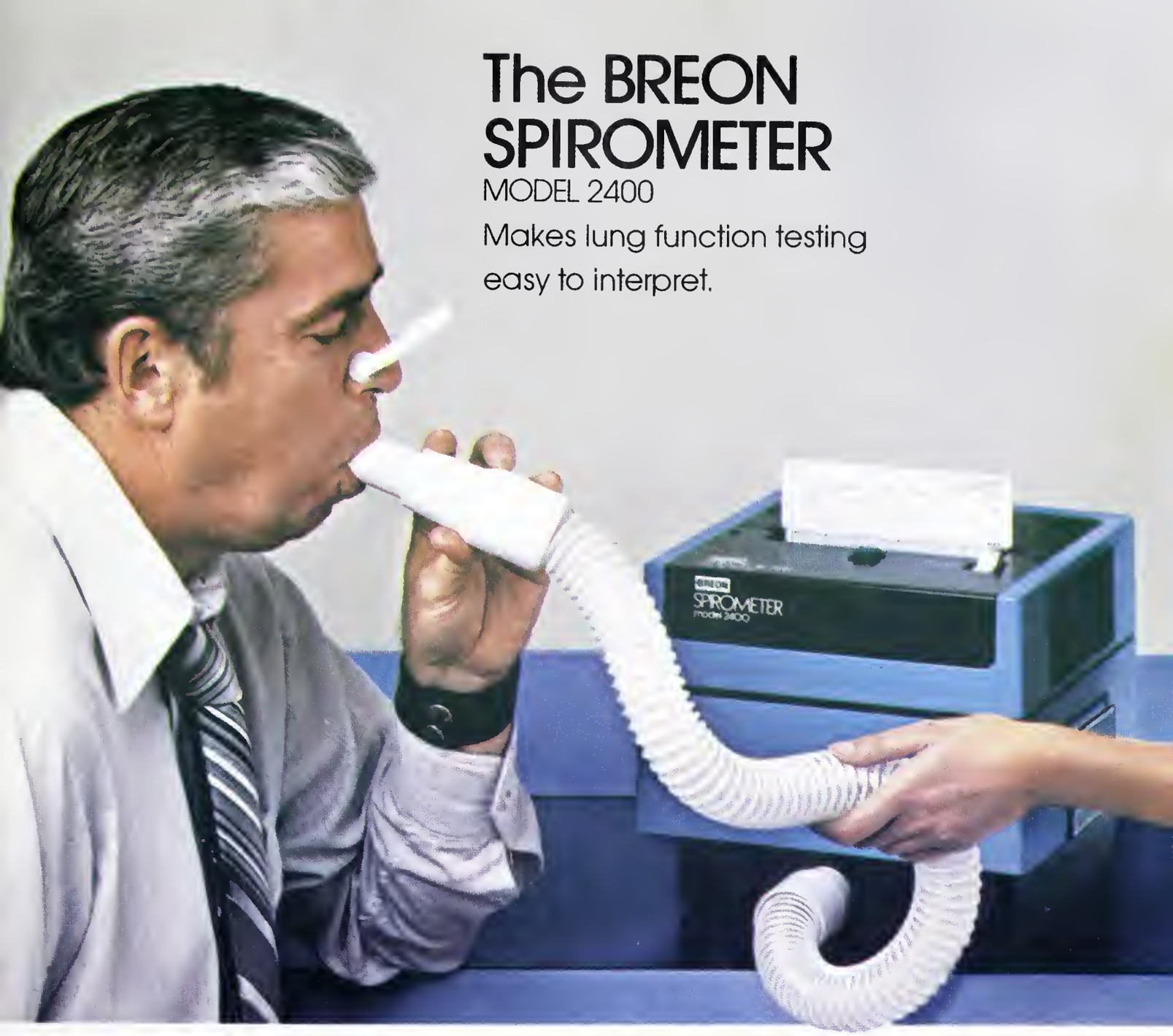

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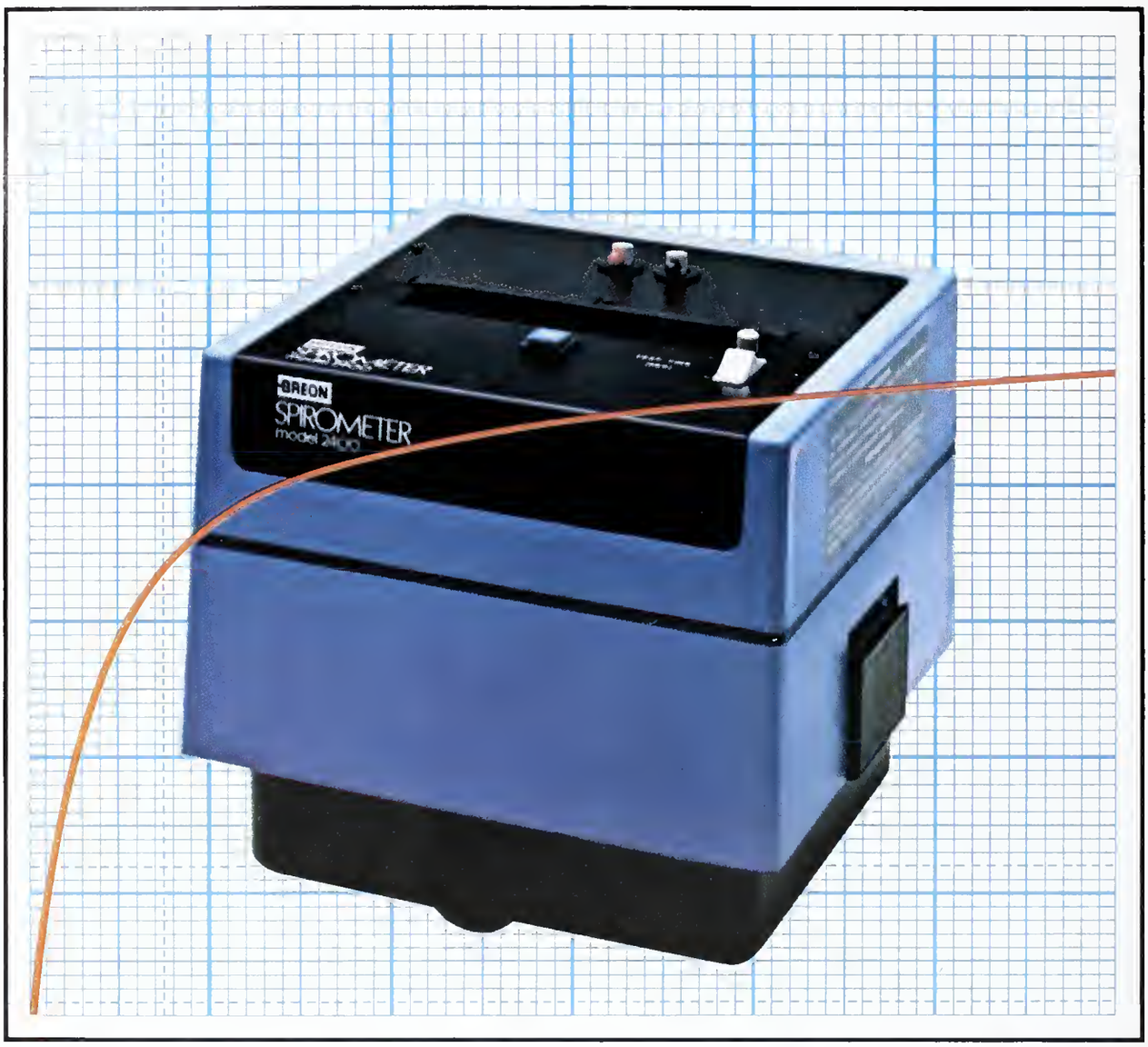

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efforts of organized labor, the federal bureaucracy, and aspiring politicians, to take over the health care system," Dr Merrill said.

Access to health care

There are areas of Texas with limited access to health care, but steps are under way to correct this problem, said Edward N. Brandt, MD, vice president for health affairs, The University of Texas System, Austin.

These steps include increased numbers of graduating professionals, increased opportunities for primary care education, and positive inducements to settle in underserved areas.

"Unfortunately, these steps require time, but it would appear that solutions are under way for all citizens in Texas to have reasonable access to health care. Simplistic solutions such as mandatory service by graduates must be resisted," Dr Brandt warned.

Medical political action

"My worry is that American medicine is the next sphere of American life to be victimized by ill-conceived government intervention," said Archie T. Johnson, Jr, MD. Dr Johnson is a member of the AMA Special Ad Hoc Committee on Health Planning.

First the government may try to control the price of medical care. This will produce incredible inflationary price pressures, and shortages of crucial medical personnel and services, Dr Johnson warned. And these, inevitably, will be used as a pretext for the politicians to demand even more controls.

Dr Johnson offered some advice for Texas physicians. Physicians should be getting the message about the quality of American medical care to their patients. Explain to them what quality medical care means, he said.

The federal government

"The health field illustrates as few others the dismal results of government intervention. Through Medicare and Medicaid and a host of other programs, Washington has been pouring billions into people's hands to promote improved medical care. And, in the process, it has helped stimulate an explosion in health costs. This, in turn, now stimulates political demands for still further government intervention, said William C. Burton, vice president/division manager, Southwest Division of the National Association of Manufacturers, Houston.

Where would the federal government get the additional annual minimum of $168 billion which a full-scale government health insurance plan would cost, he asked.

In health, as in other areas, America desperately needs a breathing spell to digest and work out the vast government programs already on the books—to identify where government works best and where it does worst—and to strike a better balance between governmental action and private action, he recommended.

"Far from needing to have government spend still more of our tax money for more schemes like national health insurance, we need to rein in on present outlays and end the nightmare of deficit financing—even if it takes a Constitutional Amendment to force this on Washington," Burton recommended.

"The great need is to get government out of our pockets and off our backs and back onto the track of national greatness.

"I believe that the medical profession, with its millions of contacts and unrivaled credibility with people throughout America, can plan a decisive role in this battle," Burton concluded.

J. Alexander McMahon, American Hospital Association president, told TMA members attending the January conference, "The challenge to health care providers is how to better allocate reduced resources."

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NHI hearings show public doesn't agree about NHI

Last October, the US Dept of Health, Education, and Welfare conducted more than 100 hearings, including one in Houston, to assess public opinion on national health insurance.

Now, HEW has published its distillation of the people's voice, saying that the nation wants a national health insurance system to "build on the strengths of the existing system, reflect the lessons learned in other countries having mature health insurance programs, develop approaches for coping with the current and anticipated cost pressures, and stress preventive care and health education efforts."

The report notes that "while the public recognizes the need for NHI policy development, they urged that the department proceed with extreme caution and gain from the positive and negative experiences of other nations, such as England, Sweden, and Canada."

More than 8,600 individuals and organizations presented their views at the hearings.

On physician reimbursement, the report says "virtually all respondents other than practicing physicians who dealt with the issue of physician reimbursement supported something other than fee-for-service, and a great many non-physicians expressed the opinion that the allowable fee (in whatever way that is to be determined) should constitute payment in full from an NHI program."

The HEW report also says "there was strong support voiced for utilizing primary care practitioners (physicians assistants, nurse practitioners, etc.) in lieu of physicians."

The report is called "The National Health Insurance National Outreach Report," and cites these trends in public opinion:

A majority said that, at the minimum, there should be coverage of catastrophic health expenses for all and comprehensive coverage for low income groups and persons not currently covered by Medicaid, Medicare, or private plans.

A majority of witnesses called for some cost containment mechanism before development of any NHI program.

The public believes the present health care system can be substantially improved through more emphasis on prevention, and greater use of nurse practitioners and other similar types of health professionals.

TMA Distinguished Service Recipient, Wendell H. Hamrick, MD, dies in Houston

Wendell H. Hamrick, MD, Houston, died Feb 7 in Houston.

Dr Hamrick had received TMA's Distinguished Service Award in 1977 for his outstanding contributions to Texas medicine.

He had served as the president of the Harris County Medical Society in 1960, Speaker and Vice Speaker of the TMA House of Delegates, and chairman of the TMA Council on Constitution and Bylaws.

As an undergraduate, he worked his way through Rice University and then earned his MD degree from the University of Texas Medical Branch in Galveston in 1934. Dr Hamrick is survived by his wife, Thelma, and two children, Wendell H. Hamrick, Jr, and Emily Hamrick Moreland, both of Houston.

An obituary will appear in a future issue of *Texas Medicine*.

County medical society executive Millard J. Heath dies

Millard J. Heath, executive officer of the Dallas County Medical Society for more than 30 years, died Jan 16 in Dallas.

Heath, one of the earliest county medical society executives in the country, retired in 1975.

His career, dating from the 1930s, covers a wide range of service oriented activities. Heath didn't limit his talents to his work for the medical society. He also had worked 11 years as the executive secretary of Dallas Goodwill and four years as chief juvenile probation officer for the county. He worked for other Dallas medical societies, including the Dallas Southern Clinical Society. In 1972 he received its prestigious Marchman Award, the first layman to be so honored. He guided the 1962-63 Dallas county-wide polio immunization program.

His leadership in the medical society resulted in the development of methods and procedures

for similar organizations across the country. During his tenure as executive director of the Dallas County Medical Society, membership grew from 600 to 1,989.

Born in Weatherford, Heath was ordained a Methodist minister in 1936. He studied sociology and theology for 12 years at Southern Methodist University's night and summer school. He was a member of the Oak Cliff chapter of the Order of DeMolay and served as a Scottish Rite degree master.

Survivors include his widow, Mary; two sons, William J. Heath and Robert L. Heath; two daughters, Mrs. Dorothy Clary and Mary Heath; 14 grandchildren, and two great-grandchildren.

The Dallas County Medical Society honored him in 1967 by naming the trust fund established for scholarships presented to allied health students, The Millard J. Heath Scholarship Trust Fund of the Dallas County Medical Society.

In 1960, upon his selection as a "Headliner" by the Dallas Press Club, Heath was cited for his role in establishing the excellent relationship between the Dallas medical profession and the press and the public.

More than 500 speakers will present TMA's May Annual Session

More than 500 individuals will participate in presentations of the 1978 TMA Annual Session May 11-14 in San Antonio. That number will include approximately 350 TMA members who will present papers and their work. Fifty-three prominent, out-of-state guest speakers have been selected. There will also be 100 special essayists, including researchers, therapists, attorneys, and other professional representatives.

The comprehensive format will involve 22 scientific sections of the TMA, nine special programs, and programs presented by 32 specialty societies and related medical organizations.

John H. Budd, MD, Cleveland, Ohio, AMA president, will address the House of Delegates luncheon May 11. Edward Teller, PhD, Nobel Prize Winner and consultant, Lawrence Livermore Laboratory, University of California, will present the general meeting luncheon address May 12.

The TMA House of Delegates will meet the mornings of May 11, 12, and 13 and will be free to attend the scientific programs in the afternoons.

Most scientific sessions and sessions of the TMA House of Delegates will be in the San Antonio Convention Center.

A German May Fest is being planned as the Association's social event May 12 at the San Antonio Convention Center. An Oompah Band from Fredericksburg will provide entertainment.

Physician comment sought on changes in ethics code

The American Medical Association is seeking comment from American physicians regarding proposed revision of the AMA's Principles of Medical Ethics.

The amendments proposed by the AMA Judicial Council are intended to modernize the language of the Principles and to clarify their meaning. The changes are on the agenda of the AMA House of Delegates for the Annual Convention in June, 1978, in St. Louis.

Comments and suggestions should be addressed to Bruce Nortell, Secretary AMA Judicial Council, American Medical Association, 535 N Dearborn St, Chicago, IL 60610.

Following is the proposed new version of the Principles:

Preamble. These principles are intended to aid physicians in maintaining high standards of ethical professional conduct in their relations with patients, colleagues, members of allied professions, and the public.

One. The primary objective of the medical profession is to serve patients competently with full respect for their dignity.

Two. Physicians should strive continually to improve medical knowledge and skill and to make available to patients and colleagues the benefits of their professional attainments.

Three. A physician should not engage or participate in treatment which is not founded on a scientific basis.

Four. The medical profession should protect the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of their profession, and voluntarily accept its self-imposed disciplines. Physicians should expose, without hesitation, illegal or unethical conduct of members of the profession.

Five. Physicians may choose when they will serve except in emergencies. Competent services should be provided and continued until the physician is discharged or services are discontinued after giving adequate notice. A physician should not attempt to obtain patients by deception.

Six. Physicians should resist restraints which interfere with medical judgment and skill or cause deterioration of the quality of medical care.

Seven. Physicians are entitled to be compensated fairly for personally providing or supervising the medical care of patients. A commission should not be paid nor accepted for the referral of patients.

Eight. A physician should seek consultation upon request or whenever it may benefit the patient.

Nine. A physician may not reveal confidences entrusted during medical attendance or deficiencies observed in the character of patients, unless required to do so by law or it becomes necessary in protecting the welfare of the patients or the community.

Ten. In addition to providing care to patients, the physician has a social responsibility to participate in activities intended to improve the health of the community.

TEXPAC winner of AMPAC's All Events award

For the fourth consecutive year, TEXPAC, the Texas Medical Association Political Action Committee, has won AMPAC's All Events first place membership award. TEXPAC placed well in all six award categories nationally to achieve the ranking.

In addition to the top award, TEXPAC placed second in auxiliary members and second in total dollars raised.

TEXPAC finished the 1977 membership year with a 40% increase in dollars and a 19% increase in physician members over the last non-election year, 1975.

Correction

A Letter to the Editor in the January 1978 issue of *Texas Medicine* contained a wrong address for the Tourette Syndrome Association. The correct address is Bell Plaza Bldg, 42-40 Bell Blvd, Bayside, NY 11361.

Medicine scores high in recent Harris surveys

Medicine's leadership scored highest in two recent Harris surveys as public confidence in major institutions increased throughout the country.

In a survey taken in late 1977, Harris reported that the public shows its greatest confidence in the "people running medicine."

Fifty-five percent of the public said it has "a great deal of confidence" in medical leadership, compared to 42% in a survey made in 1976.

Of the 16 institutions tested, only the press failed to score higher than in 1976. Scoring second to medical leadership was higher education with 41%. The other percentages: organized religion, 34%; US Supreme Court, 31%; the military, 31%; television news, 30%; White House, 26%; major companies, 23%; executive branch of government, 23%; local government, 21%; state government, 19%; the press, 19%; law firms, 16%; Congress, 15%; organized labor, 15%; and advertising agencies, 11%.

A few weeks earlier Harris released a similar survey designed to test whether the public thinks the leaders of various institutions and professions are "in touch with" the people they are supposed to lead or help.

Again medicine led the list. Seventy-three percent of the public said medicine's leaders "really know what people want," up from 69% in 1975. Next to medicine was television news with 67%. At the bottom of the 15-institution list was Congress with 31%.

A Roper survey released late in December indicates that the public is becoming less satisfied with all types of services. Roper found 54% of the public to be "very well satisfied" with its banking services.

Physicians and dentists followed with identical ratings of 45%. The physician rating had dropped from 50% in 1975 and the dentist rating had fallen from 52%. Thirty-nine percent said they were very well satisfied with their hospitals, down from 45% in 1975.

Another Harris Survey released at the end of 1977 shows that 62% of the public feels that the current system is acceptable, although only 39% show real enthusiasm for it.

On the other hand, 49% of the public is opposed to "a national health service under which everyone would get free health care paid for out

of taxes; in such an arrangement, doctors would work for salaries paid for by the government, and hospitals would be managed by the government." Only 31% of the public favored such a plan. Harris found that the public would give considerable support to changes in the current system that would require all employers to provide health insurance for their employees, require the government to provide health insurance for the unemployed, and extend private sector coverage for catastrophic expenses.

JCAH adopts new standards and lists for pathology and emergency services

A significant revision which lists categories of specimens exempt from pathological examination has been adopted by the Board of Commissioners of the Joint Commission on Accreditation of Hospitals.

The JCAH board has also adopted revised standards for hospital emergency services. Both actions were taken at the December 1977 board meeting.

The revision of pathology services standards reflects the concern of the JCAH that the requirements of its standards be implemented as cost-effectively as possible without adversely affecting the quality of patient care. In defining those categories of specimens exempt from pathological examination, the standard requires that quality of care not be compromised.

Limited categories of specimens that may be exempt from pathological examination are defined with the stipulation that when more stringent applicable standards exist, hospital or the more strict standards will apply.

The exemptions include specimens which by their nature or condition do not permit fruitful examination, such as a cataract, orthopedic appliance, foreign body, or portion of rib removed only to enhance operative exposure. The exemptions also include therapeutic radioactive sources, the removal of which shall be guided by radiation safety monitoring requirements.

The new list includes traumatically injured members that have been amputed and for which examination for medical or legal reasons is not deemed necessary.

Also included are foreign bodies, for example bullets, that for legal reasons are given directly in the chain of custody to law enforcement representatives.

The new list includes specimens known to rarely, if ever, show pathological change, and removal of which is highly visible postoperatively, such as the foreskin from the circumcision of a new born infant.

Also included are placentas that are grossly normal and have been removed in the course of nonoperative obstetrics and teeth removed under other than general anesthesia in a dental outpatient clinic.

Although they are not effective for accreditation decision purposes until Jan 1, 1979, the new hospital emergency services section will appear as an appendix to the 1978 edition of the *Accreditation Manual for Hospitals,* which was published in late February.

The newly revised hospital emergency service section will be applicable for consultation purposes during 1978 on-site surveys by the Hospital Accreditation Program.

To reflect the current state of the art in the provision of emergency services, the JCAH board voted to expand existing standards extensively and two completely new standards have been added.

The new standards call for the establishment of the specific and general requirements for four levels of emergency care services. The first three levels all offer emergency care 24 hours a day with each level having different requirements and scope of services. The fourth level "offers reasonable care in determining whether an emergency exists, renders lifesaving first aid, and makes appropriate referral to the nearest facilities that have the capability to provide needed services." Consideration is given to other comparable classifications. The standard also involves a community-based emergency plan, patient transfer, identifying signs, disaster plans, and external communication.

The new standards also call for provision for appropriate training and education for all personnel responsible for emergency care through a planned, formal orientation program and through relevant in-service education programs.

The new standards call for continuous review, evaluation, and assurance of the quality and appropriateness of patient care provided in the emergency service through establishment of quality control mechanisms. The standard lists quality control mechanisms which are essential.

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BRIEF SUMMARY OF
PRESCRIBING INFORMATION

ANTIMINTH® (pyrantel pamoate)
ORAL SUSPENSION

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 μg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions: Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

More detailed professional information available on request.

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When you're good people recognize you.

Highly effective
Single-dose convenience
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Antiminth®
(pyrantel pamoate)
equivalent to 50 mg pyrantel/ml
ORAL SUSPENSION

a drug of choice in pinworm infections

Please see brief summary of prescribing information on facing page.

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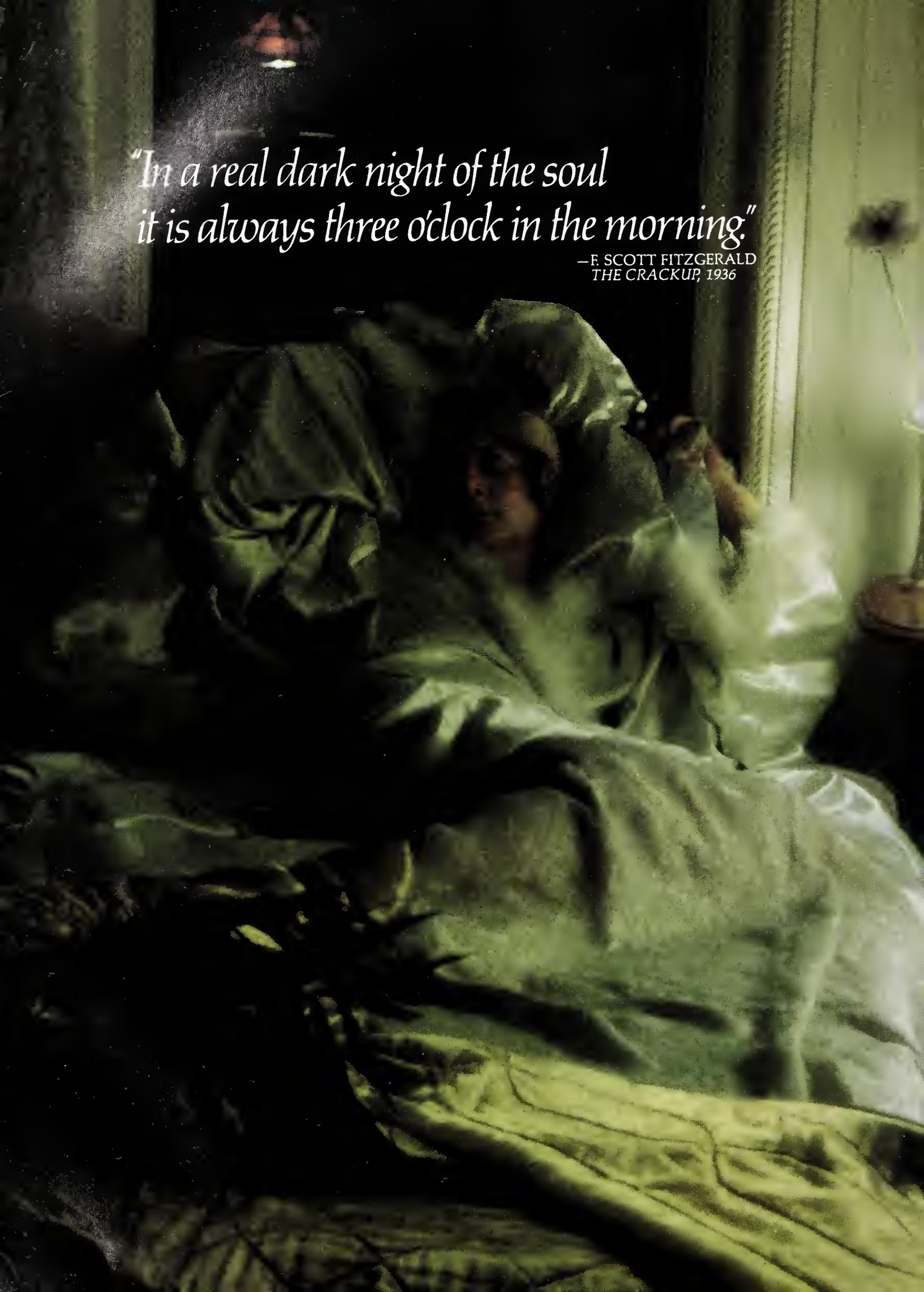

"In a real dark night of the soul
it is always three o'clock in the morning."
—F. SCOTT FITZGERALD
THE CRACKUP, 1936

Insomnia
a shade of blue that often accompanies depression

And, in anxiety/depression, Adapin® (doxepin HCl) often helps restore disturbed sleep patterns, such as early morning awakening, with a single daily dose at bedtime.[1] Adapin quickly relieves the patient's anxiety, gradually brightens his mood and outlook, with optimal antidepressant response usually evident within two to three weeks.

1. Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131:1027-1029, 1974.

Brief Summary of Prescribing Information
ADAPIN® (doxepin HCl) Capsules

Indications—Relief of symptoms of anxiety and depression.

Contraindications—Glaucoma, tendency toward urinary retention, or hypersensitivity to doxepin.

Warnings—Adapin has not been evaluated for safety in pregnancy. No evidence of harm to the animal fetus has been shown in reproductive studies. There are no data concerning secretion in human milk, nor on effect in nursing infants.

Usage in children under 12 years of age is not recommended. MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with this drug, as serious side-effects and death have been reported with the concomitant use of certain drugs and MAO inhibitors.

In patients who may use alcohol excessively potentiation may increase the danger inherent in any suicide attempt or overdosage.

Precautions—Drowsiness may occur and patients should be cautioned against driving a motor vehicle or operating hazardous machinery. Since suicide is an inherent risk in depressed patients they should be closely supervised while receiving treatment. Although Adapin has shown effective tranquilizing activity, the possibility of activating or unmasking latent psychotic symptoms should be kept in mind.

Adverse Reactions—Dry mouth, blurred vision and constipation have been reported. Drowsiness has also been observed.

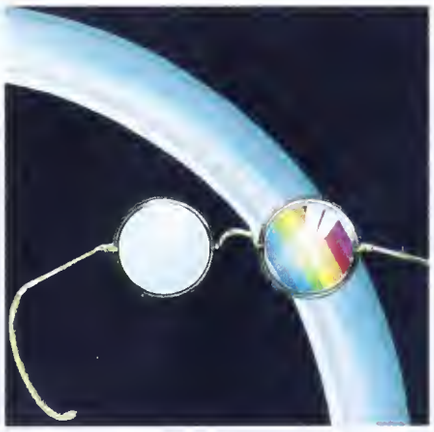
Adverse effects occurring infrequently include extrapyramidal symptoms, gastrointestinal reactions, secretory effects such as sweating, tachycardia and hypotension. Weakness, dizziness, fatigue, weight gain, edema, paresthesias, flushing, chills, tinnitus, photophobia, decreased libido, rash and pruritus may also occur.

Dosage and Administration—In mild to moderate anxiety and/or depression: 25 mg t.i.d. Increase or decrease the dosage according to individual response. Daily dosage, up to 150 mg may be taken at bedtime without loss of effectiveness. Usual optimum daily dosage is 75 mg to 150 mg per day not to exceed 300 mg per day.

Antianxiety effect usually precedes the antidepressant effect by two or three weeks.

How Supplied—Each capsule contains doxepin, as the hydrochloride: 10 mg, 25 mg, 50 mg and 100 mg capsules in bottles of 100 and 1000.

For complete prescribing information please see package insert or PDR.



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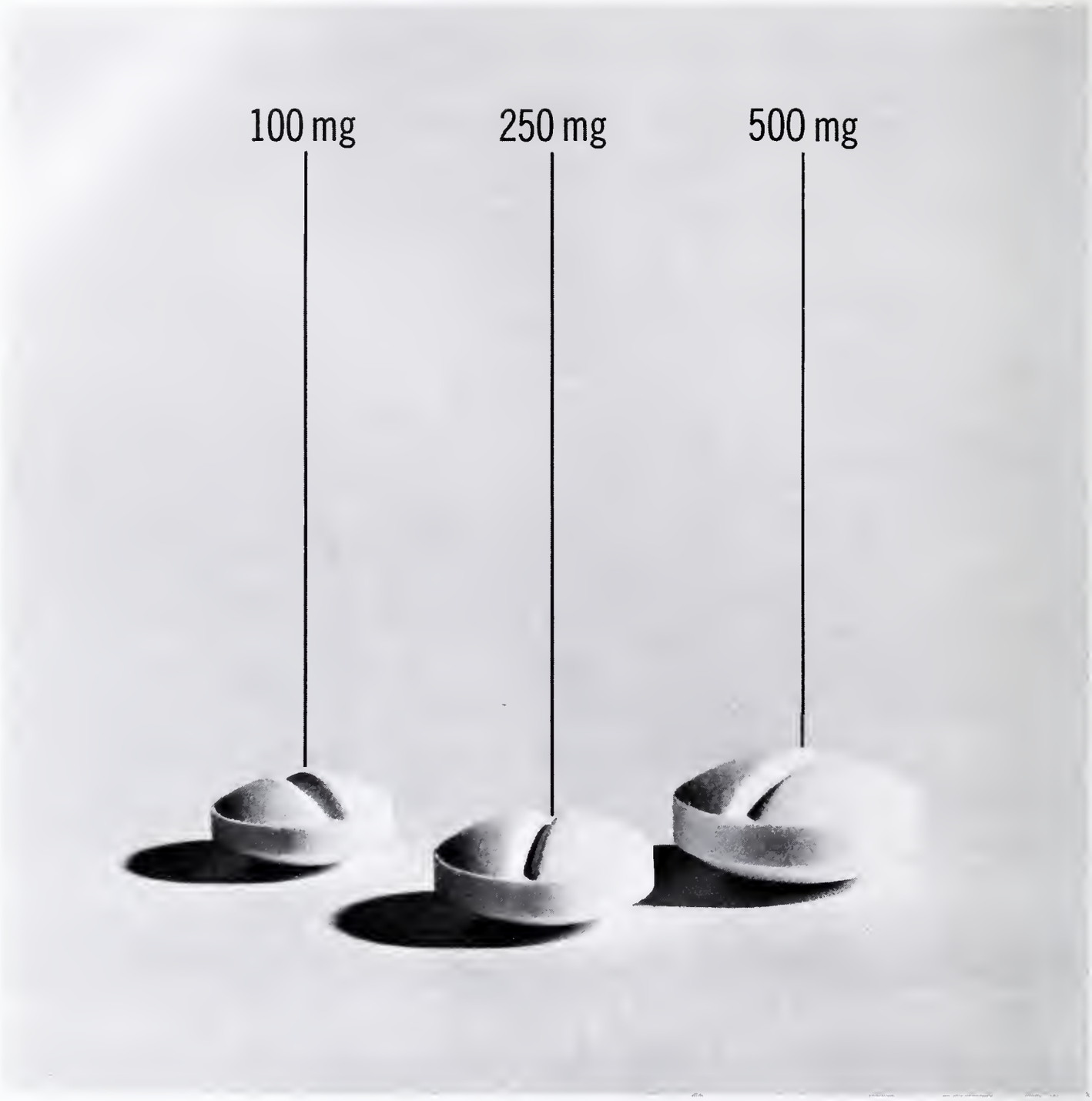

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HEW releases revised health planning guidelines

Health, Education, and Welfare Secretary Joseph Califano has released the government's second version of the health planning guidelines, saying that the revised rules contain "enough flexibility to be fair, and are tough enough to be effective."

However, he said that due to the great amount of public interest demonstrated since the original regulations were proposed last fall, another 30 days of comment will be allowed before final regulations are issued March 6.

Califano emphasized that the guidelines are to serve as national standards for local Health Systems Agencies and state health planning councils, which must make the final decision on health facilities.

The revised guidelines propose these major standards:

1. A maximum of four hospital beds per 1,000 people.
2. An average annual occupancy rate of at least 80% for hospitals in a Health Service Area.
3. At least a 75% average occupancy rate and at least 1,500 births annually for hospitals that provide care for complicated obstetrical problems.
4. No more than four neonatal intensive and intermediate care beds per 1,000 live births.
5. A minimum of 20 beds for pediatric units in urban areas.
6. Average annual occupancy rate ranging from 65% to 75% for pediatric units based on their size.
7. At least 200 open heart procedures annually in any institution where open heart surgery is performed for adults, and at least 100 heart operations annually in any institution in which pediatric open heart surgery is performed.
8. At least 300 cardiac catheterizations annually in any adult catheterization unit, and at least 150 cardiac catheterizations annually in any pediatric catheterization unit.
9. A service area with a population of at least 150,000 people, or treatment of at least 300 cancer cases annually, for megavoltage radiation therapy units.
10. At least 2,500 procedures per year for each computed tomography scanner.
11. Plans consistent with already established HEW standards and procedures for suppliers of end-stage renal disease services.

The Secretary listed three basic criteria for modifying the guidelines to meet special local or state needs. If adopting the guidelines would result in unreasonable increases in cost, they could be modified, he said. If their adoption would result in denial of access to health care, they could be adjusted.

Commenting on behalf of the Texas Medical Association, TMA president John M. Smith, Jr, MD, said the proposed guidelines should be held in abeyance until Congress has acted this Spring.

"We suggest that time and money may well be saved by deferring action on the guidelines until Congress has spoken . . . Congress is being petitioned to drop the use of quantitative terms to determine quality. Quality is best determined by the assessment of peers of the services performed and not by the number of times the service is performed. The revised guidelines of Jan 20 will invoke a mass of bureaucratic administration," Dr Smith commented.

"There are approximately 200 HSAs in this country, and each has different needs and different resources. One cannot nationally generalize about these areas, any more than one could expect one size of shoe to fit comfortably and well each of 200 different people," the TMA president said.

There are many hospitals in Texas, particularly in smaller communities, that are going to require exception to the 80% annual occupancy standards. Hospitals in these same communities substantially exceed the 4 beds per 1,000 population standards. "Hence we can anticipate regulatory red tape in the process of certifying and recertifying," Dr Smith said.

"Yet these facilities are self supporting, charge one-third to half as much as large urban facilities, and in no way contribute to the rise in the cost of hospital care," he concluded.

Of the 55,000 comments received on the initial proposals, the first concern was access to obstetric care in rural areas.

One of those who led the letter writing in Texas was Walter H. Stapp, MD, Crowell. His community of Crowell in Foard County, which

has a total population of 1,410, sent letters from 937 families and individuals to HEW protesting the proposed health planning guidelines.

Dr Stapp learned of the proposed guidelines from mailings from the TMA and the Texas Hospital Association. He spoke to Crowell service clubs about the proposed regulations, and an article was also run in the local newspaper.

The citizens of Foard County are not usually as vocal about proposed federal guidelines, Dr Stapp said, but he felt the proposed guidelines would probably have stopped health care in Foard County and surrounding counties entirely.

HEW's ability to enforce the guidelines is limited to two areas. If a local hospital proceeded with capital expenditures in violation of a stated adopted plan, HEW could withhold funds that are provided for reimbursement of depreciation costs. Also, HEW does have the power to "decertify" local HSAs that completely disregard the guidelines, but Califano stressed that planning authority rests in local hands.

Texas Medicine announces medical writing awards competition

Texas Medicine, the monthly news and scientific journal of the Texas Medical Association, is announcing its 13th annual medical writing awards competition.

The two new categories of competition include Category A for a paper written in a training situation by a Texas medical student, graduate student, resident, or fellow under age 35, and Category B for a paper written by any Texas physician under age 35 not in a training position.

The two winners will receive a $250 cash award and publication of the articles in *Texas Medicine.*

Deadline for entries is Aug 1, 1978. Manuscripts should be sent to the Executive Editor, *Texas Medicine*, 1905 N Lamar Blvd, Austin Tex 78705.

Articles must deal with a subject within the realm of the basic sciences or clinical medicine and must be original and unpublished. No minimum or maximum length is required. Criteria for judging will be excellence of scientific work and competence in writing.

For more information call or write *Texas Medicine* Department, 1905 N Lamar Blvd, Austin, Tex 78705, telephone (512) 477-6704.

FDA head asks truce with critics in dispute over drug lag

The new head of the Food and Drug Administration called for a "truce in the statistical battle between the FDA and its critics" in an article in the Jan 30 issue of the *Journal of the American Medical Association.*

Donald Kennedy, PhD, urges "a process familiar to all physicians: careful diagnosis and prescribing" in approaching the problem of time lags in approval of new drugs for use in the United States.

"If there is a drug lag, it is not a long-term condition indigenous to the United States; instead, certain nations are ahead in some drugs and behind in others," he said.

Critics of the federal regulatory agency have charged that many drugs are available in other nations long before they are approved in the United States. The delay has been blamed on excessive regulation on the part of the FDA. Not so, says the FDA commissioner.

The United States had the second fewest new drug introductions of the six major drug development countries in 1976, Dr Kennedy reports. The others are the United Kingdom, France, the Federal Republic of Germany, Italy, and Japan.

All of these six countries have what could be called a drug lag, in that some products appear first in one country or another, and are seldom available throughout the world at exactly the same time, Dr Kennedy said.

There is a decline in new drug development all over the world, not because of regulation, but because medical science has reached a plateau of development based on present knowledge. New basic scientific knowledge, comparable to the discovery of penicillin and the dawning of the age of antibiotics, is required for substantial new progress, Dr Kennedy said.

Whether a drug is introduced first in the United States or in some other nation often is a business decision of the multinational pharmaceutical industry, Dr Kennedy maintains. He added,

"It is difficult to determine whether a drug introduced in one country is the result of that country's innovative research or merely a convenient place to introduce a drug developed elsewhere. A shift in the relative value of the British pound may be given far more weight by a multinational drug company than the regulatory policy of a particular nation."

Changes are needed, Dr Kennedy says, in the US regulatory laws, and proposals are being prepared for submission to Congress early in the next session. They are designed to eliminate the "confusing welter of drug categories in the present law" and to permit "more flexibility in the testing and marketing of new drug products where they represent significant or urgently sought therapeutic breakthroughs.

"The symbolic impact of language makes it somewhat frustrating to talk rationally about drug lag. Merely giving a name to something provides it with an aura of reality. As a result, our collective attention is diverted from the real issue: changes needed in the laws that govern drug regulation. These changes will soon be considered by Congress, and that consideration can only benefit from the participation of informed physicians and their associations," Dr Kennedy concluded.

TMA honors Texas news media for reporting excellence

Reporters and editors of nine Texas newspapers, magazines, radio stations, and television stations are the 1978 winners of the Texas Medical Association Anson Jones Award for excellence in communicating health information to the public.

The winners will be presented an engraved plaque and $250 at a special ceremony during TMA's 111th Annual Session May 12 in San Antonio.

Winners include Linda Little, staff writer, *The Dallas Morning News;* Nancy King, staff writer, *The Longview Daily News;* Kay Frolich, editor-in-chief, *Discovery,* Brooks Air Force Base; Roy Appleton and Hilary Hylton, staff writers, *Corpus Christi Caller;* William Broyles, editor, John Deaton, John Davidson, Stephen Harrigan, and Alan Waldman, *Texas Monthly.*

Winners also include Patricia Smith, editor-newcaster, WRR Radio, Dallas; Quin Mathews, news reporter, KSAT-TV, San Antonio; Gary Schwitzer, medical reporter, WFAA-TV, Dallas; and Cecile Burandt, news reporter, KFDM-TV, Beaumont.

Newspaper and magazine entries were evaluated by Roland Lindsey, bureau chief, United Press International, Austin; Norris G. Davis, PhD, and Dwight L. Teeter, PhD, professors of journalism, The University of Texas at Austin; and Rae Vajgert, assistant executive editor, *Texas Medicine.*

Two panels selected by the Texas Association of Broadcasters reviewed radio and television entries. Radio judges included Jim Ray, general manager, KOKE, Austin; Jim Ribble, news director, KVET, Austin; and Mark Hanna, news director, KOKE, Austin. Television evaluators included Elmo Brown, public service director, KVUE-TV, Austin; Joe Roddy, news director, KTBC-TV, Austin; and Stanley T. Donner, PhD, retired professor and chairman, department of radio-television-film, The University of Texas at Austin.

Final selection of winners was made by the TMA Council on Communication.

Citations of Merit were awarded to Gregory Graze, staff writer, *The Dallas Times Herald;* Bill Salter, managing editor, *The Brownsville Herald;* Robert Armistead, editor, *Corsicana Daily Sun;* Linden Inglis, editor, *The Grapevine News Advertiser;* Holly Wood, reporter, *New Braunfels Herald;* Charlotte Guest, medical writer, *Fort Worth Star-Telegram;* Tom Dotson, associate editor, *Texas Business;* and Bill Watts, reporter, KTRC Radio, Houston.

Larry Paul Fuller, managing editor, *Texas Architect,* was selected for an award of special recognition.

FDA issues final blood labeling rules

All whole blood drawn after May 15 for transfusion must be labeled paid or volunteer donor.

The final regulation of the Food and Drug Administration specifies that people who do not receive monetary payment for blood are classified as volunteers. The volunteer designation

includes those who receive benefits other than money, such as membership in a blood assurance program or leave from work.

The labeling requirement also covers red blood cells, antihemophiliac factor, platelet concentrate, and single plasma.

The blood labeling rule caps a lengthy nationwide debate on national blood policy. In issuing the regulation, FDA Commissioner Donald Kennedy, PhD, said the labeling rule is "consistent with the goals of the government national blood policy to move the country to an all volunteer system."

The incidence of post-transfusion hepatitis has been reported to be three to ten times higher with blood from paid donors versus blood from volunteers.

Dr Kennedy said that 10,000 to 30,000 cases of post-transfusion hepatitis occur each year in the United States with at least 400 deaths resulting.

The final rule represents a change from an earlier FDA proposal that would have required labels to carry a warning to physicians and patients about a higher risk of hepatitis from paid-donor blood. However, Dr Kennedy said the labels will nevertheless provide "important safety information."

The regulation is "designed to reduce the life-threatening risks associated with blood transfusion," he said.

Examinations in basic sciences will be given April 14-15

The next examination of the Texas State Board of Examiners in the Basic Sciences will be Friday and Saturday, April 14-15, 1978. Locations will be determined by the number of applicants in specific areas.

Details about the time and place may be obtained by writing the Executive Secretary, Texas State Board of Examiners in the Basic Sciences, 5555 N Lamar, Building H-Suite 105, Austin, Tex 78751.

Completed applications for the April examination and all necessary information and documents required of examinees must be at the office by March 13, 1978.

Coming next month

Scheduled for publication in April are articles on variable differences among older persons and their subjective health, genitourinary tuberculosis in Texas, bowel problems and aging, symptomatic lumbar scoliosis with degenerative changes in the elderly, practical aspects of mobilizing the elderly hip fracture patient, and electrical hazards for patients and physicians.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media*	1978 Through 1/31	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	−9.0%	+38.0%	−23.1%	1.9%
Loomis-Sayles Mutual Fund	−7.7%	+25.3%	−18.2%	4.3%
Mercantile Bank Equity Fund	−5.4%	+44.0%	−28.9%	4.5%
Mercantile Bank Fixed Income Fund	−0.7%	+10.7%	− 8.2%	7.4%
T Rowe Price Growth Stock Fund	−7.4%	+33.9%	−33.8%	2.4%
T Rowe Price New Income Fund	−2.5%	+ 6.6%	N/A	7.8%
Stein Roe & Farnham Balanced Fund	−6.4%	+25.8%	−23.8%	3.8%
Standard & Poor 500 Stock Average	−6.2%	+38.8%	−19.4%	
Dow Jones Industrial Average	−7.4%	+34.8%	−18.5%	

*Includes reinvested capital gains distributions.

CAPITAL COMMENTS

WASHINGTON: PHYSICIAN SHORTAGE AREA CRITERIA. HEW has announced that the number of Americans living in areas officially designated as having a physician shortage could increase by 56% to a total of 25 million under new criteria proposed by HEW. Communities designated as having a physician shortage are eligible to apply for the service of health professionals provided through the HEW National Health Service Corps and related federal programs. The new criteria now being proposed by HEW would greatly expand the number of urban areas which will be able to qualify for assistance. Of the estimated 25 million people, 15 million will reside in inner cities according to the definition of what constitutes a shortage area, with the remaining 10 million in rural areas. Under the current criteria, there are an estimated 16 million people living in doctor shortage areas—9 million in rural locations and 7 million in inner cities. Application of the new criteria is expected to increase the number of physician shortage areas in rural parts of the South and Midwest and inner city sections of large metropolitan areas. The number of urban shortage areas could double. A shortage area under both new and former criteria may range in size from a group of neighboring counties to an urban neighborhood. The possibilities are increased substantially by the new criteria which permit designation of population groups and various kinds of medical and public facilities. Former criteria for designation of shortage areas relied almost exclusively on the ratio of people to practitioners. A critical shortage area was reached when there were 4,000 or more people per primary care physician. The new criteria lower the level to 3,500 or more per physician, and even lower levels may be designated if indicators of need, infant deaths, health status of population, and access to health services are significant. Separate shortage criteria are proposed for other health professionals including dentists, psychiatrists, pharmacists, podiatrists, optometrists and veterinarians. The number of shortage areas for some of these professions may decrease, since new criteria are more stringent. The proposed interim final regulations, which implement a section of the Health Professional Educational Assistance Act of 1976, were published Jan 10, 1978 in the *Federal Register*.

Editor's note: "Capital Comments" is prepared by Brown, Maroney, Rose, Baker & Barber, Attorneys at Law, TMA General Counsel, to highlight current items of interest relating to health matters in the US Congress federal agencies, state legislature, and Texas administrative agencies.

AUSTIN: STATE BOARD OF INSURANCE. Gov Dolph Briscoe has reappointed Durwood Manford, Jr, to the State Board of Insurance for a six-year term that will expire Jan 31, 1983.

WASHINGTON: US MEDICAL SCHOOL ENROLLMENT. During the 1976-77 school year, there were 58,266 students enrolled in US medical schools, an increase of 2,022 over the previous year. First-year enrollments increased from 15,351 in 1975-76 to 15,667 in 1976-77, with the number of graduates increasing from 13,561 to 13,607. The new medical students were selected from 42,155 applicants. The number of transfers from foreign medical schools was 494.

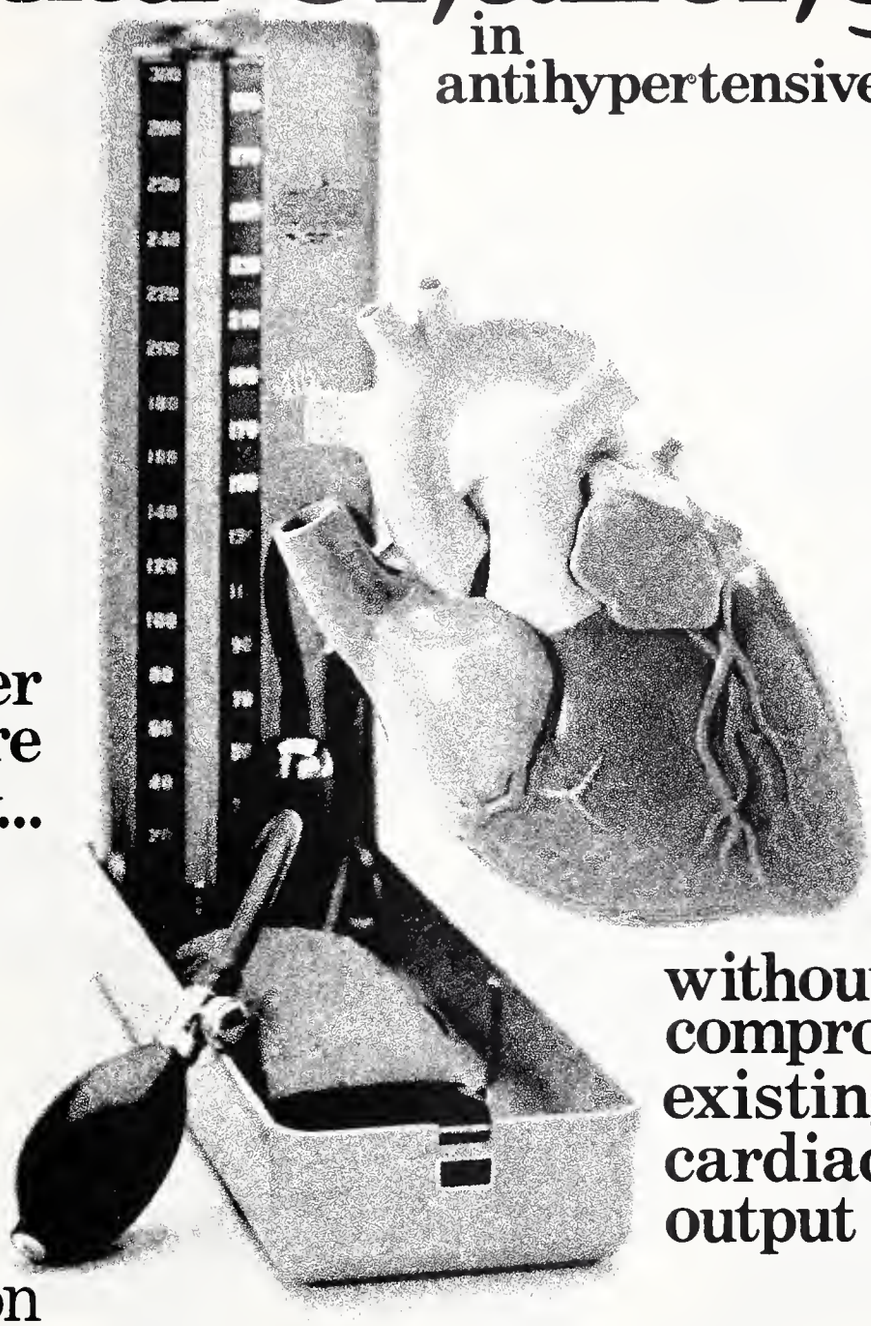
WASHINGTON: OPINIONS OF HEALTH. In a recent report based on a survey of 8,000 Americans, the Robert Wood Johnson Foundation has concluded that people believe that there is a crisis in health care today. However, 88% are "generally satisfied with the care they receive." The study was conducted for the foundation by the University of Chicago Center for Health Administration Studies. The full study will be published this year, but a special report may be obtained by writing Special Report Access, Robert Wood Johnson Foundation, Box 2316, Princeton, NJ 08540.

AUSTIN: TEXAS REHABILITATION COMMISSION. Gov Dolph Briscoe has reappointed John Thomas Bean, Fort Worth, and Jack B. Dale, Houston, to the Texas Rehabilitation Commission for six-year terms that will expire Aug 31, 1983.

WASHINGTON: HEALTH MAINTENANCE ORGANIZATIONS. National memberships in Health Maintenance Organizations is now 6,330,676, an increase of 5.2% between 1976 and 1977. A national HMO census recently released by a coalition of HMO-related organizations is a result of a six-month effort to provide uniform national HMO data. According to the census, HMO members visited their physicians 3.8 times each year and the median family cost for enrollment in an HMO is $89 per month. The census also showed that HMOs nationally have an average of 1.14 full-time equivalent physicians for 1,000 members and that hospital inpatient utilization overall for HMOs is 488 days per 1,000 members per year. In plans with more than 100,000 members, hospital inpatient utilization is 408 days for 1,000 members per year. In the plans, 295,640 HMO members' benefits are paid by Medicare, while 169,343 members' benefits are paid by Medicaid.

WASHINGTON: DRUG HEARINGS. Dr William S. Appel, executive director of the American Pharmaceutical Association, has stated that there is no pharmaceutical difference between generic and more expensive brand name drugs. The American Pharmaceutical Association has a membership of 57,000 practicing pharmacists. Dr Appel said his organization has been on record since 1970 in favor of substitution of generic for brand name drugs. He accused organized medicine of opposition to such a drug product selection, but said the most violent opposition to substitution has come from drug manufacturers.
C. Joseph Stetler, president of the Pharmaceutical Manufacturers Association, said his organization has never claimed that drugs marketed by brand names are high quality or that generics are low quality. Stetler said, "The quality of a drug product is dependent upon the capability and integrity of its maker, not on any system of drug nomenclature. PMA acknowledges a basic disagreement exists with American Pharmaceutical Association on substitution. The PMA position is simply that control of the prescription, in the interest of patient protection, should remain in the hands of the doctor," Stetler said. He also opposed forced generic prescribing on grounds that it presents patient risks because the Food and Drug Administration cannot possibly assure that all marketed products from all sources are equal in quality.

A Dual Challenge in antihypertensive therapy



to lower blood pressure effectively...

without compromising existing cardiac output

in hypertension

TABLETS: 250 mg, 500 mg, and 125 mg

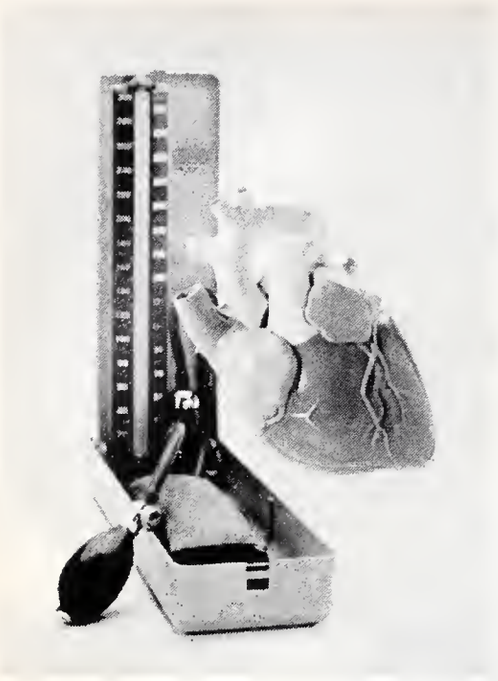
ALDOMET® (METHYLDOPA | MSD)

helps lower blood pressure effectively... usually with no direct effect on cardiac function–cardiac output is usually maintained

ALDOMET is contraindicated in active hepatic disease, hypersensitivity to the drug, and if previous methyldopa therapy has been associated with liver disorders.
It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

For a brief summary of prescribing information, please see following page.

MSD
MERCK SHARP & DOHME



in hypertension

ALDOMET®

(METHYLDOPA|MSD)

helps lower blood pressure effectively... usually with no direct effect on cardiac function– cardiac output is usually maintained

Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis; if previous methyldopa therapy has been associated with liver disorders (see Warnings); hypersensitivity.

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, occasionally with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Pregnancy and Nursing: Use of any drug in women who are or may become pregnant or intend to nurse requires that anticipated benefits be weighed against possible risks; possibility of fetal injury or injury to a nursing infant cannot be excluded. Methyldopa crosses the placental barrier, appears in cord blood, and appears in breast milk.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: urinary uric acid by the phosphotungstate method, serum creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia. Positive tests for antinuclear antibody, LE cells, and rheumatoid factor.

Allergic: Drug-related fever, lupus-like syndrome, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third months of therapy; increased dosage or adding a diuretic frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

How Supplied: Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 500.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

J6AM07R1(709)

MSD MERCK SHARP & DOHME

Ortho-Novum 1/50 TRADEMARK □ 21 and 28 day

Each tablet contains 1 mg norethindrone and 0.05 mg mestranol. Each green tablet in the 28-day regimen contains inert ingredients.

a step in the right direction

See the complete prescribing information for this product, a summary of which is on the next page.

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OJ 357-7

Ortho-Novum 1/50

TRADEMARK

Each yellow tablet contains 1 mg norethindrone and 0 05 mg mestranol Each green tablet in the 28-day regimen contains inert ingredients

IMPORTANT NOTE—This information is a BRIEF SUMMARY of the complete prescribing information provided with the product and therefore should not be used as the sole basis for prescribing the product. This summary was prepared by deleting from the complete prescribing information certain text, tables, and references where indicated by the symbol [ ]. The physician should be thoroughly familiar with the complete prescribing information and patient information before prescribing the product. [ ].

INDICATION: Contraception [ ]

CONTRAINDICATIONS: Oral contraceptives (OC's) should not be used in women with any of the following conditions

1. Thrombophlebitis, thromboembolic disorders or conditions which predispose to these disorders 2 A past history of deep vein thrombophlebitis or thromboembolic disorders 3 Cerebral vascular or coronary artery disease 4 Known or suspected carcinoma of the breast 5 Known or suspected estrogen-dependent neoplasia 6. Undiagnosed, abnormal genital bleeding 7 Known or suspected pregnancy (see WARNINGS, No 5)

WARNINGS:

The use of oral contraceptives is associated with increased risk of several serious conditions including thromboembolism, stroke, myocardial infarction, hepatic adenoma, gallbladder disease, and hypertension. Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks

1. THROMBOEMBOLIC DISORDERS AND OTHER VASCULAR PROBLEMS An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well established Four principal studies in Great Britain and three in the United States have demonstrated an increased risk of fatal and nonfatal venous thromboembolism and stroke, both hemorrhagic and thrombotic These studies estimate that users of oral contraceptives are 4 to 11 times more likely to develop these diseases without evident cause than are nonusers Overall excess mortality due to pulmonary embolism or stroke is on the order of 1 0 to 3.5 deaths annually per 100,000 users and increases with age In a collaborative American study of cerebrovascular disorders in women with and without predisposing causes, it was estimated that the risk of hemorrhagic stroke was 2 0 times greater in users than in nonusers and the risk of thrombotic stroke was 4 to 9 5 times greater in users than in nonusers [ ] An increased risk of myocardial infarction associated with the use of oral contraceptives has been reported, confirming a previously suspected association These studies, conducted in the United Kingdom, found, as expected, that the greater the number of underlying risk factors for coronary artery disease (cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, history of preeclamptic toxemia), the higher the risk of developing myocardial infarction, regardless of whether the patient was an oral contraceptive user or not. Oral confraceptives, however, were found to be a clear additional risk factor The annual excess case rate (increased risk) of myocardial infarction (fatal and nonfatal) in oral contraceptive users was estimated to be approximately 7 cases per 100,000 women users in the 30-39 age group and 67 cases per 100,000 women users in the 40-44 age group [ ] In an analysis of data derived from several national adverse reaction reporting systems, British investigators concluded that the risk of thromboembolism including coronary thrombosis is directly related to the dose of estrogen used in oral contraceptives Preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism than those containing 50-80 mcg of estrogen. Their analysis did suggest, however, that the quantity of esfrogen may not be the sole factor involved This finding has been confirmed in the United States Cases of thromboembolic disease have been reported in women using progestin-only oral contraceptives, and they should not be presumed to be free of excess risk.

The risk of thromboembolic and thrombotic disorders, in both users and nonusers of oral contraceptives, increases with age Oral contraceptives are, however, an independent risk factor for these events. [ ]

The available data from a variety of sources have been analyzed to estimate the risk of death associated with various methods of contraception The estimates of risk of death for each method include the combined risk of the contraceptive method (e g , thromboembolic and thrombotic disease in the case of oral contraceptives) plus the risk attributable to pregnancy or abortion in the event of method failure. This latter risk varies with the effectiveness of the contraceptive method [ ] The study concluded that the mortality associated with all methods of birth control is low compared to the risk of childbirth, with the exception of oral contraceptives in women over 40, and that the lowest mortality is associated with the condom or diaphragm backed up by early abortion.

The risk of thromboembolic and thrombotic disease associated with oral contraceptives increases with age after approximately age 30 and, for myocardial infarction, is further increased by cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, or history of preeclamptic toxemia The risk of myocardial infarction in oral contraceptive users is substantially increased in women age 40 and over, especially those with other risk factors. The use of oral contraceptives in women in this age group is not recommended

The physician and the patient should be alert to the earliest manifestations of thromboembolic and thrombotic disorders (e.g , thrombophlebitis, pulmonary embolism, cerebrovascular insufficiency, coronary occlusion, retinal thrombosis, and mesenteric thrombosis) Should any of these occur or be suspected, the drug should be discontinued immediately

A four- to six-fold increased risk of post-surgery thromboembolic complications has been reported in oral contraceptive users If feasible, oral contraceptives should be discontinued at least four weeks before surgery [ ]

2. OCULAR LESIONS There have been reports of neuro-ocular lesions such as optic neuritis or retinal thrombosis associated with the use of oral contraceptives Discontinue oral contraceptive medication if there is unexplained, sudden or gradual, partial or complete loss of vision; sudden onset of proptosis or diplopia, papilledema, or retinal vascular lesions and institute appropriate diagnostic and therapeutic measures

3 CARCINOMA. Long-term continuous administration of either natural or synthetic estrogen in certain animal species increases the frequency of carcinoma of the breast, cervix, vagina, and liver. [ ]

In humans, three case control studies have reported an increased risk of endometrial carcinoma associated with the prolonged use of exogenous estrogen in postmenopausal women. One publication reported on the first 21 cases submitted by physicians to a registry of cases of adenocarcinoma of the endometrium in women under 40 on oral contraceptives [ ] One study, however, while also noting no overall increased risk of breast cancer in women treated with oral contraceptives, found an excess risk in subgroups of oral contraceptive users with documented benign breast disease A reduced occurrence of benign breast tumors in users of oral contraceptives has been well-documented

In summary, there is at present no confirmed evidence from human studies of an increased risk of cancer associated with oral contraceptives. Close clinical surveillance of all women taking oral contraceptives is, nevertheless, essential In all cases of undiagnosed persistent or recurrent abnormal vaginal bleeding, appropriate diagnostic measures should be taken to rule out malignancy Women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease or abnormal mammograms should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception.

4 HEPATIC ADENOMA. Benign hepatic adenomas appear to be associated with the use of oral contraceptives. Although benign, and rare, hepatic adenomas may rupture and may cause death through intra-abdominal hemorrhage This has been reported in short-term as well as long-term users of oral contraceptives, although one study relates risk with duration of use of the contraceptive. While hepatic adenoma is a rare lesion, it should be considered in women presenting abdominal pain and tenderness, abdominal mass, or shock

A few cases of hepatocellular carcinoma have been reported in women taking oral confraceptives. [ ]

5 USE IN PREGNANCY, BIRTH DEFECTS IN OFFSPRING, AND MALIGNANCY IN FEMALE OFFSPRING The use of female sex hormones—both estrogenic and progestational agents—during early pregnancy may seriously damage the offspring It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Although there is no evidence at the present time that oral contraceptives further enhance the risk of developing this type of malignancy, such patients should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception Furthermore, a high percentage of such exposed women (from 30 to 90%) have been found to have epithelial changes of the vagina and cervix Although these changes are histologically benign, it is not known whether this condition is a precursor of vaginal malignancy Although similar data are not available with the use of other estrogens, it cannot be presumed that they would not induce similar changes.

Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb-reduction defects. One case control study has estimated a 4 7-fold increase in risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormonal withdrawal fests for pregnancy or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than one in 1,000 live births

In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestins are effective for these uses.

There is some evidence that triploidy and possibly other types of polyploidy are increased among abortuses from women who become pregnant soon after ceasing oral contraceptives Embryos with these anomalies are virtually always aborted spontaneously Whether there is an overall increase in spontaneous abortion of pregnancies conceived soon after stopping oral contraceptives is unknown.

Pregnancy should be ruled out before initiating or continuing the contraceptive regimen. Pregnancy should always be considered if withdrawal bleeding does not occur. If pregnancy is confirmed, the patient should be apprised of the potential risks to the fetus and the advisability of continuation of the pregnancy should be discussed in the light of these risks. It is also recommended that women who discontinue oral contraceptives with the intent of becoming pregnant use an alternate form of contraception for a period of time before attempting to conceive Many clinicians recommend 3 months

The administration of progestin-only or progestin-estrogen combinations to induce withdrawal bleeding should not be used as a test of pregnancy.

6 GALLBLADDER DISEASE. Studies reporf a doubling of the risk of surgically confirmed gallbladder disease in users of oral contraceptives or estrogen for 2 or more years

7. CARBOHYDRATE AND LIPID METABOLIC EFFECTS. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. For this reason, prediabetic and diabetic patients should be carefully observed while receiving oral contraceptives

An increase in triglycerides and total phospholipids has been observed in patients receiving oral contraceptives.

8. ELEVATED BLOOD PRESSURE An increase in blood pressure has been reported in patients receiving oral contraceptives. In some women hypertension may occur within a few months of beginning oral contraceptive use In the first year of use, the prevalence of women with hypertension is low in users and may be no higher than that of a comparable group of nonusers The prevalence in users increases, however, with longer exposure, and in the fifth year of use is two and a half to three times the reported prevalence in the first year Age is also strongly correlated with the development of hypertension in oral contraceptive users Women who previously have had hypertension during pregnancy may be more likely to develop elevation of blood pressure when given oral contraceptives.

9 HEADACHE. The onset or exacerbation of migraine or development of headache of a new pattern which is recurrent, persistent, or severe, requires discontinuation of oral contraceptives and evaluation of the cause

10. BLEEDING IRREGULARITIES Breakthrough bleeding, spotting, and amenorrhea are frequent reasons for patients discontinuing oral contraceptives In breakthrough bleeding, as in all cases of irregular bleeding from the vagina, nonfunctional causes should be borne in mind In undiagnosed persistent or recurrent abnormal bleeding from the vagina, adequate diagnostic measures are indicated to rule out pregnancy or malignancy [ ] Changing to an oral contraceptive with a higher estrogen content, while potentially useful in minimizing menstrual irregularity, should be done only if necessary since this may increase the risk of thromboembolic disease

Women with a past history of oligomenorrhea or secondary amenorrhea or young women without regular cycles may have a tendency to remain anovulatory or to become amenorrheic after discontinuation of oral contraceptives Women with these preexisting problems should be advised of this possibility and encouraged to use other contraceptive methods.

11 ECTOPIC PREGNANCY Ectopic as well as intrauterine pregnancy may occur in contraceptive failures However, in oral contraceptive failures, the ratio of ectopic to intrauterine pregnancies is higher than in women who are not receiving oral contraceptives, since the drugs are more effective in preventing intrauterine than ectopic pregnancies [ ]

12. BREAST FEEDING Oral contraceptives given in the postpartum period interfere with lactation. There may be a decrease in the quantity and quality of the breast milk Furthermore, a small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs [ ] If feasible, the use of oral contraceptives should be deferred until the infant has been weaned

PRECAUTIONS: General 1 A complete medical and family history should be taken prior to the initiation of oral contraceptives The pretreatment and periodic physical examinations should include special reference to blood pressure, breasts, abdomen and pelvic organs, including Papanicolaou smear and relevant laboratory tests As a general rule, oral contraceptives should not be prescribed for longer than 1 year without another physical examination being performed 2. Under the influence of estrogen-progestogen preparations, preexisting uterine leiomyomata may increase in size 3 Patients with a history of psychic depression should be carefully observed and the drug discontinued if depression recurs to a serious degree Patients becoming significantly depressed while taking oral contraceptives should stop the medication 4 Oral contraceptives may cause some degree of fluid retention. They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention, such as convulsive disorders, migraine syndrome, or cardiac or renal insufficiency 5. Patients with a past history of jaundice during pregnancy have an increased risk of recurrence of jaundice while receiving oral contraceptive therapy If jaundice develops in any patient receiving such drugs, the medication should be discontinued. 6 Steroid hormones may be poorly metabolized in patients with impaired liver function and should be administered with caution in such patients 7 Oral contraceptive users may have disturbances in normal tryptophan metabolism which may result in a relative pyridoxine deficiency 8. Serum folate levels may be depressed by oral contraceptive therapy Since the pregnant woman is predisposed to the development of folate deficiency and the incidence of folate deficiency increases with increasing gestation, it is possible that if a woman becomes pregnant shortly after stopping oral contraceptives, she may have a greater chance of developing folate deficiency and complications attributed to this deficiency 9 The pathologist should be advised of oral contraceptive therapy when relevant specimens are submitted 10. Certain endocrine and liver function tests and blood components may be affected by estrogen-containing oral contraceptives

a Increased sulfobromophthalein retention.

b. Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3, increased norepinephrine-induced platelet aggregability

c. Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by protein-bound iodine (PBI), T4 by column, or T4 by radioimmunoassay Free T3 resin uptake is decreased, reflecting the elevated TBG, free T4 concentration is unaltered.

d Decreased pregnanediol excretion

e Reduced response to metyrapone test

INFORMATION FOR THE PATIENT (See Patient Package Insert)

DRUG INTERACTIONS: Reduced efficacy and increased incidence of breakthrough bleeding have been associated with rifampin A similar association has been suggested with barbiturates, phenylbutazone, phenytoin sodium, and ampicillin. [ ]

ADVERSE REACTIONS: An increased risk of the following serious adverse reactions has been associated with the use of oral contraceptives (see WARNINGS).

Thrombophlebitis; pulmonary embolism; coronary thrombosis; cerebral thrombosis; cerebral hemorrhage, hypertension, gallbladder disease, congenital anomalies

There is evidence of an association between the following conditions and the use of oral contraceptives, although additional confirmatory studies are needed

Mesenteric thrombosis; benign hepatomas; neuro-ocular lesions, e.g , retinal thrombosis and optic neuritis.

The following adverse reactions have been reported in patients receiving oral contraceptives and are believed to be drug related

Nausea, usually the most common adverse experience; vomiting reaction, occurring in approximately 10% or less of patients during the first cycle Other reactions, as a general rule, are seen much less frequently or only occasionally; gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, dysmenorrhea, amenorrhea during and after treatment, temporary infertility after discontinuance of treatment; edema, chloasma or melasma which may persist, breast changes tenderness, enlargement and secretion; change in weight (increase or decrease); change in cervical erosion and cervical secretion; possible diminution in lactation when given immediately postpartum; cholestatic jaundice, migraine, increase in size of uterine leiomyomata; rash (allergic); mental depression; reduced tolerance to carbohydrates, vaginal candidiasis. The following adverse reactions have been reported in users of oral contraceptives, and the association has been neither confirmed nor refuted

Premenstrual-like syndrome, intolerance to contact lenses, change in corneal curvature (steepening), cataracts, changes in libido, chorea; changes in appetite; cystitis-like syndrome; headache, nervousness, dizziness; hirsutism; loss of scalp hair; erythema multiforme; erythema nodosum; hemorrhagic eruption; vaginitis, porphyria; impaired renal function.

ACUTE OVERDOSE: Serious ill effects have not been reported following acute ingestion of large doses of oral contraceptives by young children Overdosage may cause nausea, and withdrawal bleeding may occur in females [ ]

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Ortho

MEETINGS

AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS

The Joint Spring Meeting of the American Society of Clinical Pathologists and the College of American Pathologists will take place March 16-23, 1978 in Dallas. Among the scientific presentations is a symposium on Legionnaires' disease co-sponsored by the City of Dallas Health Department. The symposium will be in the Gold Room of the Fairmont Hotel, Wednesday, March 22, from 2 to 5 pm. It offers a general review of Legionnaires' disease with particular emphasis on the anatomic pathology, microbiology, and immunology aspects of the disease and its etiologic agents. Staff members from the Bureau of Laboratories, Center for Disease Control, Atlanta, will conduct the symposium. Other topics on the preliminary program are the cytocentrifuge as a useful adjunct in a cytology laboratory, renal tubular IgA, Fc receptor bearing lymphocytes in normal individuals, plasma kallikrein levels, factors influencing the isolation and recovery of chlamydia trachomatis, and potentiophotometry.

Contact: 2100 W Harrison St, Chicago 60612.

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The Fairmont is the hotel headquarters for the 1978 New Orleans Graduate Medical Assembly. The Assembly begins Friday, March 31, 1978, and continues through Tuesday, April 4, 1978. Scientific and technical exhibits, scientific sessions, a trauma symposium, and a clinicopathologic conference will be available to registrants. The scientific sessions will feature discussions related to dermatology, urology, gynecology, neurology and neurosurgery, psychiatry, gastroenterology, orthopedics, internal medicine, surgery, ophthalmology, obstetrics, anesthesiology, pediatrics, otolaryngology, pathology, and family practice. Physicians attending these sessions are eligible for continuing education credit under Category 1 of the AMA Physician's Recognition Award. Saturday night's entertainment is a Natchez boat trip.

Contact: 1430 Tulane Ave, New Orleans 70112.

CURRENT NATIONAL MEETINGS

AMERICAN COLLEGE OF ALLERGISTS, 34th Annual Congress, Las Vegas (Nev) Hilton Hotel, Apr 1-6, 1978. Comprehensive review of clinical immunologic, allergic diseases relevant to needs of practicing physician. Focus on physician/registrant participation. Category 1, AMA Physician's Recognition Award, 30 hours. Registration fees: members, $75; nonmembers, $190. No fees for residents, interns, nurses, technicians from teaching hospitals. Contact: Frances P White, Exec Sec, Treas, 2141 14th St, Boulder, Colo 80302.

AMERICAN COLLEGE OF RADIOLOGY, 17th Annual National Conference on Detection and Treatment of Breast Cancer, San Francisco, Mar 6-9, 1978. Internationally recognized authorities on radiology, surgery, pathology, epidemiology. Increased emphasis on pathology, radiation therapy, medical oncology, nuclear medicine, rehabilitation; opportunities for registrants to raise questions, contribute information from floor. Topics: etiology and diagnosis; diagnosis and treatment; pathology; xeromammography; film mammography; thermography. Sixth Annual Wendell G Scott Memorial Lecture to be delivered by Arthur Holleb, MD. Co-sponsored by College of American Pathologists, Educational Foundation of Society of Plastic and Reconstructive Surgeons; in cooperation with American College of Obstetricians and Gynecologists. Category 1, AMA Physician's Recognition Award, 29 hours. Contact: Breast Cancer Conference, 6900 Wisconsin Ave, Chevy Chase, Md 20015.

US-CANADIAN DIVISION, INTERNATIONAL ACADEMY OF PATHOLOGY, INC, 67th Annual Meeting, Atlanta Hilton, March 6-10, 1978. Annual Maude Abbott lecture to be delivered by AE Saxen, MD, Department of Pathology, University of Helsinki, Helsinki, Finland. Scientific papers, poster sessions, eleven pathology specialty conferences, 46 short courses, special course on electron microscopy in diagnostic pathology, long course on kidney diseases. Contact: Leland D Stoddard, MD, Sec-Treas, Department of Pathology, Medical College of Georgia, Augusta, Ga 30902.

For other courses and symposia, see Continuing Education Courses, pp 37-40.

MARCH

AMERICAN COLLEGE OF CARDIOLOGY, Anaheim, Calif, Mar 6-9, 1978. William D Nelligan, CAE, Exec Officer, 9650 Rockville Pike, Bethesda, Md 20014.

AMERICAN COLLEGE OF EMERGENCY PHYSICIANS, FLORIDA CHAPTER, Miami, Mar 16-19, 1978. Registrar, Sixth Annual Postgraduate Seminar on Emergency Medicine, 600 Courtland St, Orlando, Fla 32804.

AMERICAN COLLEGE OF RADIOLOGY, San Francisco, Mar 6-9, 1978. 20 N Wacker Dr, Chicago 60606.

AMERICAN FERTILITY SOCIETY, New Orleans, Mar 29-Apr 1, 1978. HH Thomas, MD, Medical Dir, 1608 13th Ave S, Suite 101, Birmingham, Ala 35205.

AMERICAN PSYCHOSOMATIC SOCIETY, Washington, DC, Mar 30-Apr 1, 1978. MA Hofer, MD, Sec-Treas, 265 Nassau Rd, Roosevelt, NY 11575.

AMERICAN SOCIETY OF ABDOMINAL SURGEONS, Las Vegas, Nev, Mar 10-15, 1978. BF Alfano, MD, Exec Sec, 675 Main St, Melrose, Mass 02176.

■ AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS, Dallas, Mar 16-23, 1978. 2100 W Harrison St, Chicago 60612.

AMERICAN SOCIETY FOR CLINICAL PHARMACOLOGY AND THERAPEUTICS, Atlanta, Mar 29-31, 1978 1718 Gallagher Rd, Norristown, Pa 19401.

AMERICAN SOCIETY OF REGIONAL ANESTHESIA, San Francisco, Mar 18-19, 1978. H Carron, Sec-Treas, Box 11083, Richmond, Va 23230.

ASSOCIATION FOR HOSPITAL MEDICAL EDUCATION, Atlanta, Mar 22-26, 1978. Ms GM Coleman, Admn Dir, 1911 Jefferson Davis Hwy, Suite 905, Arlington, Va 22202.

CALIFORNIA MEDICAL ASSOCIATION, San Francisco, Mar 17-22, 1978. WW Babb, Exec Dir, 731 Market St, San Francisco 94103.

INTERNATIONAL ACADEMY OF PATHOLOGY, INC, Atlanta, Mar 6-10, 1978. Leland D Stoddard, MD, Sec-Treas, Department of Pathology, Medical College of Georgia, Augusta, Ga 30902.

INTERNATIONAL ENDORADIOTHERAPY SYMPOSIUM, Los Angeles, Mar 10-12, 1978. JA Lipsett, MD, Department of Radiology, Los Angeles County-University of Southern California Medical Center, 1200 N State St, Los Angeles 90033.

INTRAOCULAR LENS SYMPOSIUM, Los Angeles, Mar 14-18, 1978. KJ Hoffer, MD, Chmn, American Intraocular Implant Society, Box 3140, Santa Monica, Calif 90403.

NATIONAL HEALTH COUNCIL, San Francisco, Mar 6-8, 1978. Forum Coordinator, 1740 Broadway, New York 10019.

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY, New Orleans, Mar 31-Apr 4, 1978. Lois Neary, Exec Officer, 1430 Tulane Ave, New Orleans 70112.

■ NINTH DISTRICT DISTRICT MEDICAL SOCIETY, TEXAS MEDICAL ASSOCIATION, Crosby, Tex, Mar 23, 1978. Paul Jordan, Exec Dir, Houston Academy of Medicine, 103 Jesse H Jones Library Bldg, Houston 77030.

■ TEXAS ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS, Lakeway, Mar 2-4, 1978. William H. Nash, MD, Sec-Treas, 7711 Louis Pasteur Dr, San Antonio, Tex 78229.

APRIL

AMERICAN CLEFT PALATE ASSOCIATION, Atlanta, Apr 5-8, 1978. Mrs Flora P Berk, Admn Sec, 331 Salk Hall, University of Pittsburgh, Pa 15261.

AMERICAN COLLEGE OF ALLERGISTS, Las Vegas, Nev, Apr 1-6, 1978. 2141 14th St, Boulder, Colo 80302.

AMERICAN GERIATRICS SOCIETY, INC, Atlanta, Apr 13-14, 1978. Mrs Kathryn S Henderson, Exec Dir, 10 Columbus Circle, New York 10019.

AMERICAN COLLEGE OF PHYSICIANS, Boston, Apr 17-20, 1978. RH Moser, MD, Exec Vice-pres, 4200 Pine St, Philadelphia 19104.

AMERICAN COLLEGE OF RADIOLOGY, San Diego, Apr 9-14, 1978. WC Stronach, Exec Dir, 20 N Wacker Dr, Chicago 60606.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY, Palm Beach, Fla, Apr 25-27, 1978. RL Ruggles, MD, Exec Sec, c/o Ann Holm, 2954 Dorman Rd, Broomall, Pa 19008.

AMERICAN MEDICAL SOCIETY ON ALCOHOLISM, St Louis, Apr 27-May 3, 1978. JG Chen See, MD, Sec, 733 Third Ave, New York 10017.

■ AMERICAN MEDICAL STUDENTS ASSOCIATION-UT MEDICAL BRANCH NATIONAL STUDENT RESEARCH FORUM, Galveston, Tex, Apr 26-29, 1978. 209 Basic Sciences Bldg, UT Medical Branch, Galveston, Tex 77550.

AMERICAN OCCUPATIONAL MEDICAL ASSOCIATION, New Orleans, Apr 10-14, 1978. Howard N Schulz, Exec Dir, 150 N Wacker Dr, Chicago 60606.

AMERICAN PHYSIOLOGICAL SOCIETY, Atlantic City, NJ, Apr 9-14, 1978. OE Reynolds, PhD, Exec Sec-Treas, 9650 Rockville Pike, Bethesda, Md 20014.

■ HOLISTIC HEALTH ASSOCIATION, Houston, Apr 15-16, 1978. Gail Stephenson, 5001 Richmond, Houston 77056.

■ HOUSTON SOCIETY OF CLINICAL PATHOLOGISTS, Houston, Apr 29, 1978. Mrs Luna, Coordinating Sec, Department of Pathology, Baylor College of Medicine, 1200 Moursund, Houston 77030.

ILLINOIS STATE MEDICAL SOCIETY, Chicago, Apr 1-5, 1978. RN White, Exec Admn, 55 E Monroe St, Suite 3510, Chicago 60603.

MEDICAL ASSOCIATION OF GEORGIA, Jekyll Island, Ga, Apr 21-23, 1978. JM Moffett, Exec Dir, 938 Peachtree St NE, Atlanta 30309.

NATIONAL CONFERENCE ON HIGH BLOOD PRESSURE CONTROL, Los Angeles, Apr 2-4, 1978. Conference Headquarters, 1501 Wilson Bldg, Suite 600, Arlington, Va 22209.

NATIONAL COUNCIL ON THE AGING, St Louis, Apr 16-19, 1978. Barbara Freda, Conference Coordinator, 1828 L St, NW, Washington, DC 20036.

NEBRASKA MEDICAL ASSOCIATION, Lincoln, Neb. Apr 30-May 3, 1978. KE Neff, Exec Sec, 1901 First National Bank, Lincoln, Neb 68508.

PAN-PACIFIC SURGICAL ASSOCIATION, Honolulu, Apr 1-7, 1978. Cesar B deJesus, MD, Sec, Public Relations, Room 237, Alexander Young Bldg, Honolulu 96813.

■ SOCIETY FOR BIOMATERIALS, San Antonio, Tex, Apr 29-May 2, 1978. C William Hall, MD, Program Committee Co-Chmn, 8500 Culebra Rd, San Antonio, Tex 78284.

STATE MEDICAL SOCIETY OF WISCONSIN, Milwaukee, Apr 13-15, 1978. ER Thayer, Sec and Gen Mgr, 330 E Lakeside, Madison, Wis 53701.

MAY

AMERICAN ACADEMY OF FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY, Palm Beach, Fla, May 1978. ME Tardy, Jr, MD, Sec, 2800 Lake Shore Dr, Chicago 60657.

■ AMERICAN ACADEMY OF PEDIATRICS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. William S Conkling, MD, Chmn, Box 311, Navasota, Tex 77868.

AMERICAN ACADEMY OF PSYCHOANALYSIS, Atlanta, May 5-7, 1978. Ms C Bruskin, Exec Sec, 40 Gramercy Park N, New York 10010.

AMERICAN ASSOCIATION OF CLINICAL UROLOGISTS, Washington, DC, May 19-20, 1978. BH Farber, Jr, Admn Officer, 2017 Walnut St, Philadelphia 19103.

AMERICAN ASSOCIATION FOR THORACIC SURGERY, New Orleans, May 8-10, 1978. WT Maloney, Exec Sec, 6 Beacon St, Suite 620, Boston 02108.

■ AMERICAN COLLEGE OF CHEST PHYSICIANS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. Charles B Shuey, Jr, MD, Pres, 3500 Gaston Ave, Dallas 75246.

AMERICAN COLLEGE OF LEGAL MEDICINE, San Francisco, May 5-7, 1978. Ms B Hanna, Exec Sec, 1340 N Astor St, Suite 2608, Chicago 60610.

AMERICAN LUNG ASSOCIATION, Boston, May 14-17, 1978. WF Roberts, Acting Mng Dir, 1740 Broadway, New York 10019.

AMERICAN PEDIATRIC SURGICAL ASSOCIATION, Hot Springs, Va, May 3-6, 1978. JA O'Neill, Jr, MD, Sec, Department of Pediatric Surgery, Vanderbilt University Hospital, Nashville, Tenn 37232.

AMERICAN PSYCHIATRIC ASSOCIATION, Atlanta, May 8-12, 1978. Dr M Sabshin, Med Dir, 1700 18th St NW, Washington, DC 20009.

AMERICAN PSYCHOANALYTIC ASSOCIATION, Atlanta, May 3-7, 1978. Ms H Fischer, Admn Dir, One E 57th St, New York 10022.

AMERICAN SOCIETY FOR GASTROINTESTINAL, Las Vegas, Nev, May 24, 1978. WT Maloney, Exec Sec, 6 Beacon St, Suite 620, Boston 02108.

AMERICAN SOCIETY OF INTERNAL MEDICINE, San Francisco, May 4-7, 1978. WR Ramsey, Exec Dir, 535 Central Tower Bldg, 703 Market St, San Francisco 94103.

■ FLYING PHYSICIANS ASSOCIATION, TEXAS CHAPTER, San Antonio, Tex, May 11, 1978. M Young Stokes III, MD, Pres, 331 W Morton St, Denison 75020.

■ INTERNATIONAL COLLEGE OF SURGEONS, TEXAS STATE SURGICAL DIVISION, San Antonio, Tex, May 11, 1978. Vincent T Caldarola, MD, Pres, 1001 Rosa Verde Towers, San Antonio, Tex 78205.

OKLAHOMA STATE MEDICAL ASSOCIATION, Oklahoma City, May 4-7, 1978. D Bickham, Exec Dir, 601 NW Expressway, Oklahoma City 73118.

SOCIETY OF BIOLOGICAL PSYCHIATRY, Atlanta, May 4-7, 1978. Dr AW Epstein, Sec-Treas, 1430 Tulane Ave, New Orleans 70112.

■ TEXAS AIR-MEDICS ASSOCIATION, San Antonio, Tex, May 11, 1978. David F Eanes, Jr, MD, Pres, 518 N Fifth St, Temple, Tex 76501.

■ TEXAS ASSOCIATION OF NEUROLOGICAL SURGEONS, San Antonio, Tex, May 12, 1978. Robert A Partain III, MD, Vice-Pres & Prog Chmn, 510 Madison Professional Bldg, San Antonio, Tex 78215.

■ TEXAS ASSOCIATION OF PHYSICIANS IN NUCLEAR MEDICINE, San Antonio, Tex, May 13, 1978. Stanley E Hodges, Jr, MD, Pres, 3434 Swiss Ave #20, Dallas 75204.

■ TEXAS ASSOCIATION OF PUBLIC HEALTH PHYSICIANS, San Antonio, Tex, May 11, 1978. John L Bradley, MD, Pres, Box 10736, El Paso, Tex 79997.

■ TEXAS DERMATOLOGICAL SOCIETY, San Antonio, Tex, May 12, 1978. James H Strauch, MD, Prog Chmn, 4K Medical Professional Bldg, San Antonio, Tex 78212.

■ TEXAS DIABETES AND ENDOCRINE ASSOCIATION, San Antonio, Tex, May 12, 1978. Jaime A Davidson, MD, Vice-Pres, 301 W Colorado, Dallas 75208.

■ TEXAS MEDICAL ASSOCIATION, Annual Session, San Antonio, Tex, May 10-14, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.

■ TEXAS NEUROLOGICAL SOCIETY, San Antonio, Tex, May 12, 1978. Harold Skaggs, Jr, MD, Pres, 801 W 34th St, Austin, Tex 78705.

■ TEXAS OCCUPATIONAL MEDICAL ASSOCIATION, San Antonio, Tex, May 11, 1978. Joseph F Peters, Jr, MD, Pres, Box 1616, Cleburne, Tex 76031.

■ TEXAS OPHTHALMOLOGICAL ASSOCIATION, San Antonio, Tex, May 12, 1978. Rodolfo E Margo, MD, Pres, Mid-Valley Medical Arts Building, Weslaco, Tex 78596.

■ TEXAS ORTHOPAEDIC ASSOCIATION, San Antonio, Tex, May 13, 1978. David P Green, MD, Prog Chmn, Division of Orthopaedic Surgery, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio, Tex 78284.

■ TEXAS OTOLARYNGOLOGICAL ASSOCIATION, San Antonio, Tex, May 12, 1978. Bernard L Yollick, MD, Vice-Pres, 5925 Forest Lane, Dallas 75230.

■ TEXAS PHYSICAL MEDICINE & REHABILITATION SOCIETY, San Antonio, Tex, May 12, 1978. Kenneth B Washburn, MD, Sec, 7703 Floyd Curl Dr, San Antonio, Tex 78284.

■ TEXAS RHEUMATISM ASSOCIATION, San Antonio, Tex, May 13, 1978. Alfred Miller, MD, Pres, 906 Oak Hills Medieal Bldg, San Antonio, Tex 78229.

■ TEXAS SOCIETY OF ATHLETIC TEAM PHYSICIANS, San Antonio, Tex, May 12, 1978. C David Campbell, MD, Prog Chmn, 205 S 15th St, Corsicana, Tex 75110.

■ TEXAS SOCIETY OF COLON AND RECTAL SURGEONS, San Antonio, Tex, May 13, 1978. Raul Ramos, MD, Sec-Treas, 311 Camden, San Antonio, Tex 78215.

■ TEXAS SOCIETY OF PLASTIC SURGEONS, San Antonio, Tex, May 12, 1978. Robert W Wood, Jr, MD, Vice-Pres, 1213 Hermann Dr, Suite 885, Houston 77030.

JUNE

AMERICAN CANCER SOCIETY, INC, Seattle, Jun 29-Jul 1, 1978. 777 Third Ave, New York 10017.

AMERICAN DIABETES ASSOCIATION, Boston, Jun 11-13, 1978. JL Dugan, Jr, Exec Vice-Pres, 600 Fifth Ave, New York 10020.

AMERICAN MEDICAL ASSOCIATION, Annual Convention, St Louis, Jun 17-22, 1978. 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Louis, Jun 14-18, 1978. Ms L Loesel, Exec Dir, 1740 Broadway, New York 10019.

GEORGIA LUNG ASSOCIATION, Sea Island, Ga, Jun 14-18, 1978. Flay W Sellers, Managing Dir, 1383 Spring St, NW, Atlanta 30309.

ROCKY MOUNTAIN NEUROSURGICAL SOCIETY, INC, Colorado Springs, Colo, Jun 11-14, 1978. Harry Starr, MD, 3260 Fannin St, Beaumont, Tex 77701.

JULY

AMERICAN ACADEMY OF FAMILY PHYSICIANS, NEW MEXICO CHAPTER, Mescalero, NM, Jul 17-20, 1978. Box 456, Sunland Park, NM 88063.

AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE, Ann Arbor, Mich, Jul 10-15, 1978. Box 222, Morton Grove, Ill 60053.

INTERNATIONAL ACADEMY OF PHYSICIANS AND SURGEONS, Kyoto, Japan, Jul 2-7, 1978. Alfred Soffer, MD, Exec Dir, 911 Busse Highway, Park Ridge, Ill 60068.

ROYAL SOCIETY OF MEDICINE, London, Jul 23-28, 1978. Conference Office, 43 Charles St, Mayfair, London W1X 7PG, England.

AUGUST

INTERNATIONAL SOCIETY FOR EXPERIMENTAL HEMATOLOGY, Chicago, Aug 27-31, 1978. Walter Fried, MD, Division of Hematology/Oncology, Michael Reese Hospital and Medical Center, 29th & Ellis Ave, Chicago 60616.

CONTINUING EDUCATION COURSES

EDITOR'S NOTE: Continuing education courses are listed in each issue. Information about courses should be submitted in writing six weeks before publication; for example, information for the June issue (published June 1) is needed by April 15.

MARCH

Basic Sciences: Microbiology & Immunology

Title: Basic Immunology for the Clinician
Sponsors: Immunology Faculty, UT Health Science Center at Dallas
Location of Course: UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas
Date: March 1-4, 1978
Duration: Continuous; 3½ days; Wednesday-Saturday; 30 total course hours
Designed For: General practitioners; Specialists
Credit: Category 1, AMA Physician's Recognition Award; 30 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Cardiovascular Disease

Title: Echocardiography in Clinical Practice
Sponsors: UT Health Science Center at San Antonio; Council on Clinical Cardiology, American Heart Association
Location of Course: Hyatt Regency Hotel, Acapulco, Mexico
Date: March 1-4, 1978
Duration: Continuous; 4 days; 6 hours instruction per day; Wednesday-Saturday; 8 am-6 pm; 22 total course hours
Fee: $150 plus travel expenses
Designed For: Specialists in Cardiovascular Disease
Enrollment: Minimum, 100; Maximum, 250
Credit: AAFP; Category 1, AMA Physician's Recognition Award; 22 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Chest Disease

Title: Practical Management of Pulmonary Diseases
Sponsors: American College of Physicians, Philadelphia; Scott and White Memorial Hospital
Location of Course: Sid Richardson Auditorium, 2401 S 31st St, Temple
Date: March 1-3, 1978
Duration: Continuous; 3 days; 7 hours instruction per day; Wednesday-Friday; 9 am-5 pm; 21 total course hours
Fee: American College of Physicians members, residents, $130; Associates, $65; Nonmembers, $195
Designed For: General practitioners; Specialists
Enrollment: Minimum, 50; Maximum, 125
Credit: Category 1, AMA Physician's Recognition Award; 21 hours
Teaching Methods: Audiovisual materials, clinical conference, lecture, open question, panel
Contact: Linda M. Salsinger, Registrar, Postgraduate Courses, American College of Physicians, 4200 Pine St, Philadelphia 19104

Emergency Care

Title: Advanced Life Support Provider Course
Sponsors: UT Health Science Center at San Antonio, American Heart Association
Location of Course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio
Date: March 10-12, 1978
Duration: Continuous; 3 days; Friday, 5-8 pm; Saturday, 8 am-5 pm; Sunday, 8 am-12 pm; 12 total course hours
Fee: $100
Designed For: General practitioners; Specialists in Emergency Care
Credit: Category 1, AMA Physician's Recognition Award; 12 hours; Continuing Education Approval and Recognition Program (CEARP)
Teaching Methods: Audiovisual materials, lecture, open question, small group stations
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

General Medicine

Title: To be announced
Sponsors: Ninth District Medical Society, Houston
Location of Course: Newport Country Club, Crosby
Date: March 23, 1978
Duration: Continuous; 1 day
Fee: None
Designed For: General practitioners; Various specialists
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: John W. Nichols, MD, Secretary-Treasurer, Ninth District Medical Society, 103 Jesse H. Jones Library Bldg, Houston 77030

Geriatrics

Title: Geriatrics
Sponsors: Continuing Education Division, UT Medical Branch, Galveston; Sandoz Pharmaceuticals
Location of Course: Galvez Hotel/Motel, 21st & Seawall, Galveston
Date: March 12-16, 1978
Duration: Continuous; 5 days; Sunday-Thursday
Fee: $75
Designed For: General practitioners; Specialists in Geriatrics, Psychiatry

Enrollment: Minimum, 60; Maximum, 120
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 12-15 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar, live clinic
Contact: NeKee McNulty, Assistant to the Director, Continuing Education Division, John Sealy Hospital, Eighth Floor, UT Medical Branch, Galveston 77550

Internal Medicine

Title: Update in Internal Medicine
Sponsors: Department of Internal Medicine, UT Health Science Center at Dallas
Location of Course: UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas
Date: March 13-16, 1978
Duration: Continuous; 4 days; Monday-Thursday
Designed For: Specialists in Internal Medicine
Credit: Category 1, AMA Physician's Recognition Award
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Title: Recent Advances in Internal Medicine
Sponsors: American College of Physicians, Philadelphia; UT Medical Branch
Location of Course: UT Medical Branch, Galveston
Date: March 20-22, 1978
Duration: Continuous; 3 days; Approximately 8 hours instruction per day; Monday-Wednesday; Approximately 24 total course hours
Fee: American College of Physicians members, fellows, residents, research fellows, $130; Nonmembers, $195; Associates, $65
Designed For: General practitioners; Specialists in Internal Medicine
Enrollment: Minimum, 100; Maximum, 200
Credit: Category 1, AMA Physician's Recognition Award; Approximately 24 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel
Contact: Linda M. Salsinger, Registrar, Postgraduate Courses, American College of Physicians, 4200 Pine St, Philadelphia 19104

Otolaryngology

Title: Fourth Annual Voice Institute
Sponsors: Audiology and Speech Pathology, Baylor College of Medicine, Houston
Location of Course: Auditorium, Neurosensory Building, Texas Medical Center, Houston
Date: March 1-3, 1978
Duration: Continuous; 2 days; 8 hours instruction per day; Wednesday-Friday; 16 total course hours
Fee: $75
Designed For: Specialists in Otolaryngology
Credit: Category 1, AMA Physician's Recognition Award; 16 hours
Teaching Methods: Audiovisual materials, laboratory work, lecture, open question, panel, patient demonstration
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Plastic Surgery

Title: Plastic Surgery for the General Surgeon
Sponsors: UT Health Science Center at San Antonio
Location of Course: To be announced
Date: March 16-18, 1978
Duration: Continuous; 3 days; Thursday-Saturday; 17 total course hours
Fee: $175
Designed For: Specialists in Plastic Surgery
Credit: Category 1, AMA Physician's Recognition Award; 17 hours
Teaching Methods: Audiovisual materials, lecture, open question
Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Radiology & Radioisotopes

Title: Baylor Annual Radiology Conference—1978
Sponsor: Department of Radiology, Baylor College of Medicine, Houston
Location of Course: Dunfey's Royal Coach Motor Hotel, 7000 Southwest Freeway, Houston
Date: March 30-April 1, 1978
Duration: Continuous; 2½ days; Thursday-Saturday
Fee: $185
Designed For: Specialists in Radiology
Credit: Category 1, AMA Physician's Recognition Award; 19 hours
Teaching Methods: Audiovisual materials, lecture
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

APRIL

Adolescent's Medical Care

Title: Fifth Annual Symposium on Sports Medicine
Sponsor: UT Health Science Center at San Antonio
Location of Course: Joe C. Thompson Conference Center, Austin
Date: April 1-2, 1978
Duration: Continuous; 2 days; 4-6 hours instruction per day; Saturday-Sunday; 10 total course hours
Fee: Physicians, $75

Designed For: General practitioners; Specialists in Adolescents' Medical Care
Enrollment: Minimum, 50; Maximum, 300
Credit: Category 1, AMA Physician's Recognition Award; 10 hours
Teaching Methods: Audiovisual materials, enrollee observes procedure, programmed instruction (self-teaching device), open question, panel, patient demonstration, television
Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Cardiovascular Disease

Title: Cardiac Rehabilitation Following Infarction
Sponsor: Continuing Education Division, UT Medical Branch, Galveston
Location of Course: Galvez Hotel/Motel, 21st & Seawall, Galveston
Date: April 6-8, 1978
Duration: Continuous; 2½ days; 8 hours instruction per day; Thursday-Saturday; 8 am-5 pm; 17 total course hours
Fee: $100
Designed For: General practitioners; Specialists in Otology, Family Medicine; Nurses
Enrollment: Minimum, 60; Maximum, 150
Credit: AAFP Prescribed; Category 1, AMA Physician's Recogition Award; 17 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, patient demonstration, seminar, live clinic
Contact: NeKee McNulty, Assistant to the Director, Continuing Education Division, John Sealy Hospital, Eighth Floor, UT Medical Branch, Galveston 77550

Title: Tenth Annual International Biomaterials Symposium
Sponsors: Southwest Research Institute, San Antonio; UT Health Science Center at San Antonio
Location of Course: Hilton Palacio Del Rio, 200 S Alamo, San Antonio
Date: April 28-May 2, 1978
Duration: Continuous; 4 days; Saturday-Tuesday; 15 total course hours
Fee: To be announced
Designed For: Specialists in Cardiovascular Disease, Orthopedic Surgery, Plastic Surgery
Credit: Category 1, AMA Physician's Recognition Award; 15 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: C. William Hall, MD, Society for Biomaterials, PO Drawer 28510, San Antonio 78284

Dermatology

Title: Dermatology for Primary Care Physicians
Sponsor: Division of Dermatology, UT Health Science Center at Dallas
Location of Course: UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas
Date: April 14-15, 1978
Duration: Continuous; 2 days; Friday-Saturday
Fee: $110
Designed For: Specialists in Dermatology
Credit: Category 1, AMA Physician's Recognition Award
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Emergency Care

Cancelled: Electrical Hazards in Hospitals, UT Health Science Center at San Antonio, April 20-22, 1978

Hematology

Title: Clinical Hematology
Sponsor: UT Health Science Center at San Antonio
Location of Course: La Posada Inn, McAllen
Date: April 8-9, 1978
Duration: Continuous; 2 days; Saturday-Sunday; 10 total course hours
Fee: $100
Designed For: General practitioners
Enrollment: Minimum, 20; Maximum, 40
Credit: AAFP; Category 1, AMA Physician's Recognition Award; 10 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Internal Medicine

Title: Progress in Infectious Disease
Sponsor: Continuing Education Division, Department of Internal Medicine, UT Medical Branch, Galveston
Location of Course: Munich, Germany
Date: April 15-22, 1978
Duration: Continuous; 5 days; 5 hours instruction per day; Monday-Friday; 25 total course hours
Fee: $150
Designed For: General practitioners; Specialists in Internal Medicine
Enrollment: Minimum, 60; Maximum, 100
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 25 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: NeKee McNulty, Assistant to the Director, Continuing Education Division, John Sealy Hospital, Eighth Floor, UT Medical Branch, Galveston 77550

Radiology & Radioisotopes

Title: Clinical Nuclear Imaging—1978
Sponsor: Department of Radiology, UT Health Science Center at Dallas
Location of Course: Fairmont Hotel, Ross & Akard, Dallas
Date: April 27-29, 1978
Duration: Continuous; 2½ days; Thursday-Saturday; 18 total course hours
Fee: $225
Designed For: Specialists in Radiology
Credit: Category 1, AMA Physician's Recognition Award; 18 hours
Teaching Methods: Audiovisual materials, clinical conference, lecture, open question, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Surgery

Title: Gastro-Intestinal Surgery—Controversies and Complications
Sponsor: Department of Surgery, UT Health Science Center at Dallas
Location of Course: UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas
Date: April 13-14, 1978
Duration: Continuous; 2 days; 7 hours instruction per day; Thursday-Friday; 14 total course hours
Designed For: Specialists in Surgery
Credit: Category 1, AMA Physician's Recognition Award; 14 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

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Kaon® Elixir
(potassium gluconate)

Kaon® Tabs
(potassium gluconate)

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KAON® (potassium gluconate) TABLETS

Description: Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
Warning: There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
Precautions: In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

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tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

Adverse Reactions: Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

KAON® (potassium gluconate) ELIXIR

Description: Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

Indications: See Kaon Tablets.

Precautions: See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

Adverse Reactions: See Kaon Tablets.

Overdosage: See Kaon Tablets.

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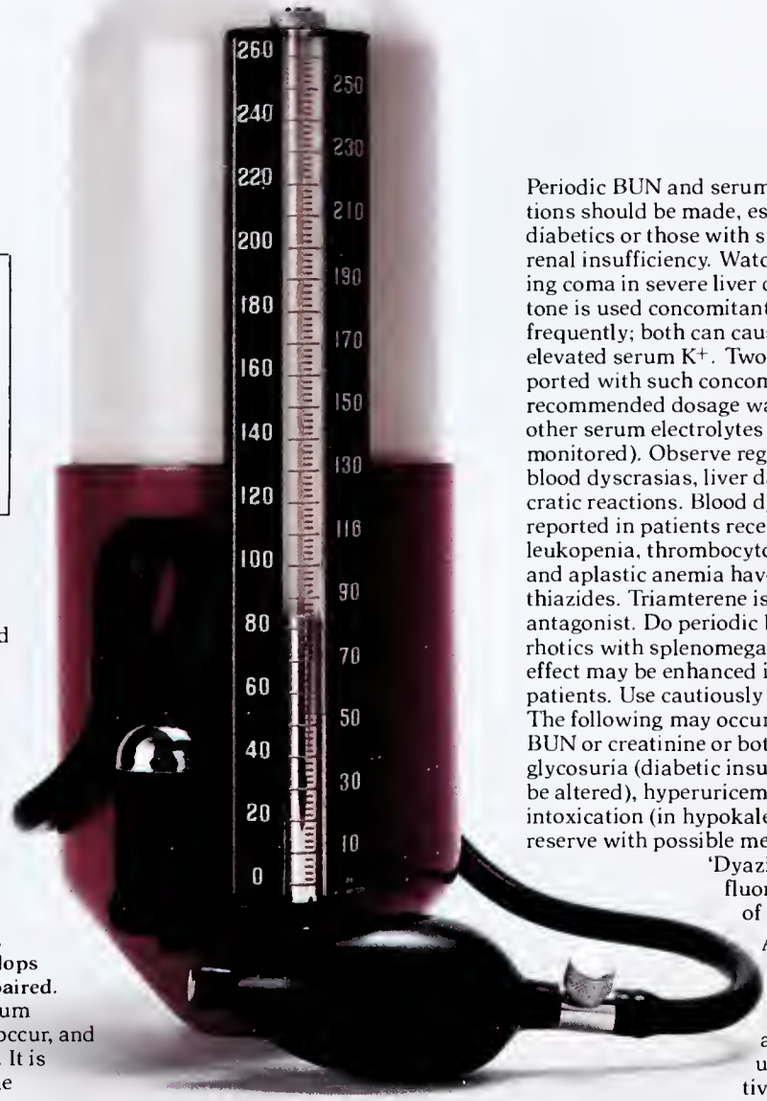

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* **Warning**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

FOR LONG-TERM CONTROL OF HYPERTENSION.* SERUM K^+ AND BUN SHOULD BE CHECKED PERIODICALLY. (SEE WARNINGS SECTION.)

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Hypnotherapy in the treatment of sexual dysfunction

James A. Hall, MD

Sexual function problems cause distress in many patients. Despite society's increased openness, many patients are inhibited in bringing sexual problems to the attention of their physician. The regular inclusion of questions about sexual function in the initial history or review of systems will reveal many instances of treatable sexual dysfunction.

Until recently, there were few medical school courses in the diagnosis and treatment of sexual dysfunction; consequently, some practicing physicians are unaware that many sexual dysfunctions can be treated, initially or completely, by short-term counseling. Most patients consider sexual dysfunction to be a medical problem, and they look to their physician as a primary source of advice and treatment.

Since sexual dysfunctions often may involve both organic and psychological factors, they should be treated within a medical framework that permits assessment of these factors and allows for the use of medication when indicated. Treatment of uncomplicated sexual disorders should be within the range of practice of the family physician, with aid from gynecologists, urologists, and psychiatrists. There seems to be little need for practice devoted solely to treatment of sexual dysfunctions.

The primary skill necessary in the treatment of sexual dysfunction is the physician's ability to take an objective history and put his patient at ease in discussing personal physical and psychological matters. This is a skill that physicians have acquired through their medical training and should be already available to them unless their own sexual insecurity creates anxiety that interferes with good interviewing techniques.

If the physician is to effectively interview a patient with sexual dysfunction, he must be comfortable in his own sexual functioning and aware of his own sexual standards, including what he considers normal and abnormal. If the interviewing physician is not comfortable with himself, his anxiety may increase as the patient discusses sexual matters. As in any aspect of medical practice, anxiety interferes with objective and dispassionate assessment.

The physician also must be able to abstain from imposing his own sexual standards as the patient's model. Normal sexual function varies widely among different cultures and in different times in the same culture.[1] Normal sexual function in our present society is to a great degree self-defined. It is possible for a person who completely abstains from sexual contact to be normal in his own definition of sexual function, while another person with an active sex life may define himself or herself as inadequate because he or she has a neurotic dominant ego-image.

Such neurotic self-judgements may be based on unconscious conflict resulting from introjected role-models of early family structure (often of an oedipal nature), excessive prohibitions from society or a subculture, traumatic sexual experiences, confusion of standards caused by changing cultural attitudes toward sexual expression,[2] stereotyped role models of sexual behavior learned in childhood,[3] and projection of unrealistic emotional needs into sexual expectations.[4] An excellent handbook on counseling patients with sexual problems, "Human Sexuality," is available from the American Medical Association.

Even the psychoanalytic models of sexual dysfunction are changing under the impact of new information,[5] and new forms of treatment, such as deconditioning,[6] are being explored. Hypnosis is related, but not identical, to conditioning therapies[7] and

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biofeedback techniques.[8] New findings in the study of brain function give neurophysiological support to the relationship between sexual functioning and the emotional expression of other needs.[9]

Perhaps the best way the physician can judge sexual normality is to compare the patient's sexual functioning to the patient's own satisfaction with his or her sexual activity and the absence of disturbing symptoms, such as anxiety, depression, loss of self-esteem, or inability to function psychologically in desired sexual situations. A comparison to external standards of normality, either the physician's standards or the society's statistical norms, usually is not beneficial and may be harmful. Since the physician inevitably is an authority figure in the mind of the patient, the physician's disapproval or condemnation of the patient's sexual behavior may be an additional factor in sexual dysfunction. It is important to represent to the patient reality factors of his behavior, such as the need for absolute avoidance of sexual activity with minors, the need to not flaunt socially disapproved sexual behavior, the need to restrict sexual activity to mutually consenting adults, and the importance of considering the well-being of the sexual partner as equal to one's own needs. By this definition, much behavior that generally is disapproved by society may be normal to a particular patient, and society may readily accept some behavior that the patient does not consider normal.

Not all problems that present as sexual dysfunctions are of sexual origin. Sexual problems may be symptomatic of nonsexual intrapsychic or interpersonal stresses.[10] Conditions which may present initially as sexual complaints include depressive syndrome, anxiety neurosis, interpersonal anger, a failure to make conscious choices regarding sexual partners, and situational factors such as alcoholism and lack of privacy. An often overlooked practical and inexpensive mechanical device that cures many sexual disorders in marriage is a lock on the inside of the bedroom door, so that neither partner is afraid that another member of the family, usually a child, will walk in during coitus. Sexual problems also may screen nonsexual dissatisfactions that the patient has not decided to admit openly to himself or herself.

The physician often can aid in the resolution of minor sexual dysfunctions by offering medical information, such as the facts that many men and women over 70 remain sexually active,[11] that direct stimulation of the clitoris distracts some women as they reach orgasm, and that whatever sexual practices a couple find mutually acceptable can be considered normal for them (including sexual abstinence).

Secondary Impotence

A frequent complaint of sexual dysfunction in men is secondary impotence, the loss of ability to have adequate penile erection. It is important in taking the medical history to ascertain if the patient has erections in any circumstance: with masturbation, with extramarital involvements, in possible homosexual contacts. It is also important to know if erections occur at night or in the morning, since penile erection is a frequent concommitment of the stage 1 REM dreaming state. If erections occur in any situation whatsoever, there is presumptive evidence that the neural and vascular supply are intact. Organic etiological factors must be ruled out, however, before secondary impotence can be considered psychogenic. Many drugs, particularly those used for hypertension and for psychiatric disorders, may have secondary impotence as a side effect. Diseases affecting the vascular and nervous systems, such as diabetes, also are to be considered.

After organic factors have been ruled out or treated, secondary impotence may be considered to exist partially or wholly because of conscious or unconscious psychological conflict.[12] Impotence may occur in

only one type of sexual situation; for example, only in extramarital affairs. To explore such possible factors, the patient should be interviewed alone.

Making the patient aware of an unconscious conflict may be sufficient to elicit changes in life patterns that will eliminate the problem. The conscious mind may have one intention, and the unconscious mind another. This conflict sometimes causes secondary impotence. Severe unconscious conflicts indicate referral for psychiatric evaluation.

Secondary impotence, however, is not necessarily caused by unconscious conflict. The most frequent cause of difficulty with erections is performance anxiety. Often there have been one or more episodes of difficulty with erections in circumstances that are easily understood—excess alcohol, fatigue, or lack of privacy or sexual interest. Once the patient has begun to worry about having erections, self-doubt can bring anxiety to each new sexual occasion.

Hypnotherapy may be a treatment of choice for secondary impotence even when there is identifiable psychological conflict and performance anxiety. The diminution of performance anxiety through hypnosis often is sufficient to restore normal sexual function. Normal function then reinforces and promotes healthy responses. Some patients can solve psychological conflicts, but still suffer from performance anxiety. Others are not psychologically minded and focus only on observable sexual function.

Hypnotherapy in Secondary Impotence

The use of hypnotherapy to treat sexual dysfunctions has been reviewed by Crasilneck and Hall,[13] Spiegel,[14] Schneck,[15] Watkins,[16] Abraham,[17] and Cheek and Lecron.[18]

Before the use of hypnotherapy, the patient should be determined to be free of psychosis, suicidal thoughts, or excessive anxiety regarding hypnosis. He should understand that hypnotherapy is not a system of one person controlling another, but a cooperative effort of the therapist and patient to mobilize the healthy aspects of the patient's unconscious mind to aid in solving the problem.[19] It may help to remind the patient that hypnotherapy has been valuable in treating other problems.[20,21] Hypnotherapy should be used only by professionals who are able to treat the same problems without hypnosis.[13] There is no place for the practice of hypnosis as an independent specialty.

The patient also should be reassured that in the medical use of hypnosis, nothing embarrassing or disturbing will be suggested. The patient is asked to sit or lie down comfortably and to free his mind of distracting thoughts. Many techniques of hypnotic induction rely on relaxation, freedom from anxiety, and receptivity of the unconscious mind to verbal suggestions.[13] More specialized forms of hypnotic induction, such as the confusion technique, should be used only rarely by expert therapists.

When the patient is in a moderate to deep state of hypnosis, he is given suggestions such as:

> While you are in this deep state of relaxation, your mind and body free of tension and tightness and stress and strain, your unconscious mind is open and helpful, hearing, understanding, accepting, and using the things I call to your attention in order to help you. Your unconscious mind, with its immense influence over your conscious mind, your body, and your nervous system uses its power in such a manner as to remove any impediment, any inhibition to the normal, natural, healthy functioning of your mind and your body during sexual activity.
>
> You will have firm, full hard erections. When sexually aroused, you will have firm, full,hard erections. You have intercourse with firm, full hard erections, with no premature ejaculation, no hurried ejaculation, simply enjoying this sexual contact in a relaxed, comfortable, healthy manner, your mind relaxed and your body relaxed, relaxed and at ease.
>
> There is no anxiety, no tension, no fear, and no nervousness. You have firm, hard erections. . . .

Notice the repetition, the emphasis on healthy functioning, and the suggestion to have no emotion that might arouse anxiety

and interfere with erection. The exact wording of the suggestions is less important than the image that is evoked in the patient's mind, since images " 'are' affects and compel action."[22] In the hypnotic state, the unconscious mind, which functions largely in images, seems more accessible to influence that is consistent with a valid conscious purpose. In jungian psychoanalytic theory, the unconscious mind continually presses for a healthy ego, particularly in dreams,[23] and seems to welcome suggestions for healthy functioning unless there is a severe neurotic conflict involving competing ego-images.

The primary purpose of this direct approach with hypnotic suggestion is to build up in the patient's unconscious mind and ego-model of normal, healthy sexual function. The healthy model of ego-identity usually is congruent with the patient's view of his sexual functioning before self-doubt and performance anxiety began.

Case Reports

Case 1: A 45-year-old married man had occasional episodes of impotence, often associated with drinking, for six to seven years before treatment. His wife had been in psychotherapy for more than a year. As she began to work through neurotic patterns of compliance that caused her severe depression, she became more sexually assertive. At this time his impotence increased and he sought treatment. When his wife initiated sexual contact he felt, "She's daring me to have sex." She had begun to control a problem of occasional excess alcohol intake. He said, "I feel guilty if I drink when she doesn't." Organic factors were ruled out, and he became a good hypnotic subject, easily achieving a deep trance state. His response to the first hypnotic session was "four successes under not always ideal conditions." After the next session he had intercourse once "with some difficulty." The subsequent hypnotherapy session was followed by "exceptionally good intercourse" three times. After the fourth session of hypnosis he said he "didn't try" because his wife had been in a period of depression. During this abstinence he had a significant dream of wanting to see a Mardi Gras show, but not wanting to buy a ticket from a female vendor, perhaps indicating fear of women in control. Then he was being chased by a rabid cow and climbed a tree to get away. The rabid cow associated to an actual event on the family farm when he was 16, and was a vivid image of fear of an aggressive female figure. These psychodynamics were discussed with him briefly. During the sixth hypnotic session he reported having had sex five times, "four perfect." He said, "I think hypnosis is 100% effective when I really want sex. The one failure was when I didn't really want to." This insight led to regular sexual function with no further hypnotherapy. He said, "I feel the problem was trying to have sex when I didn't really want to but I felt obligated. Then when I didn't have an erection once or twice that became the most important thing."

Note that hypnotherapy involved attention to psychodynamic factors, not simply the suggestion of increased erections. Not all cases are successful:

Case 2: A 55-year-old divorced man had broken off an affair with a woman toward whom he felt friendly because he met another woman whom he felt he loved and to whom he had promised to be sexually faithful. On one occasion he broke his promise. He admitted the breach to his new love under her constant suspicious questioning. She had divorced her previous husband for his sexual infidelity and said she could never trust the patient again. He began to suffer frequent impotence with her. Under hypnosis he was only a fair subject. After his first hypnotic session his attempts at sexual intercourse were "a dismal failure." His functioning improved after two more sessions of hypnotherapy, but again

declined after an argument with the woman. She refused to come for counseling with him. He discontinued further hypnotherapy but returned to his previous group psychotherapy to work out conflicts between his attraction to the woman and his fear of her control.

Hypnotherapy in Orgasmic Dysfunction

Orgasmic dysfunction in the female is an increasingly frequent presenting symptom as women acquire more conscious expectations of enjoyable sexual functioning. Some women are disturbed in their sexual responses by attempting to integrate changing standards. As one patient said, "When I began high school no girl would admit she wasn't a virgin; and by the time I was in college, if you *were* a virgin you wouldn't admit it." Sometimes such difficulties arise over a change in the dominant ego-image. It is not uncommon for women to have orgasmic sexual interaction with a male partner before they marry, and to experience orgasmic dysfunction after the wedding. This seems to be a result of integrating the previous ego-image with the new identity of wife, which often is based on the perception of the mother in childhood. One woman with orgasmic difficulty even dreamed that her mother was in bed with her husband and herself when they were attempting coitus.[13]

Some women are orgasmic in one situation, as with masturbation, but unable to experience orgasm during coitus. In such cases it is often useful to inquire as to masturbation fantasies, which frequently give useful clues to underlying psychodynamics.

In jungian psychoanalytic theory the *shadow* is a node of psychological complexes. A "complex" is a group of related images with a common emotional tone, and is not necessarily pathological. The shadow constitutes an alter-ego image that is considered undesirable from the standpoint of the dominant ego-image on which the person relies for the ordinary sense of stable identity. Sexuality may be dissociated into the shadow where it can function when sex is considered "bad," as in premarital or extramarital situations.

Apparently due to increasing sexual freedom, sexual function may be dissociated from emotional expression, allowing sexuality, but repressing the feeling. This can even cause loss of sensation in the clitoris or vagina during intercourse, an hysterical symptom. Some women have complained of being able to enjoy sex only with men they do not really like.

The hypnotherapy of orgasmic dysfunction often is more complex than the treatment of secondary impotence because the woman is able to engage in sexual intercourse even without arousal, while her male partner is not, and there is no clear indicator of various degrees of response as there is with presence or absence of erections. Whenever possible, the woman being treated with hypnotherapy for orgasmic dysfunction brings her husband to the sessions. Hearing the hypnotic suggestions given to his wife seems to increase the husband's understanding of her sexual needs. The husband's presence also keeps him fully apprised of her treatment and prevents his possible fears of her becoming sexually active outside their relationship.

The suggestions for hypnotic induction are the same as for other problems. Specific suggestions given with orgasmic dysfunction include:

> You will find your body more responsive. You will enjoy the closeness, the warmth, the affection of the sexual situation. Your breasts are more erotically responsive, your clitoris is more erotically responsive. . . .
>
> You simply find that you relax, you relax very deeply, your mind and your body respond together in a healthy, relaxed, comfortable way, and you move toward orgasm and achieve orgasm in a pleasurable comfortable way, free of tension. . . .

It frequently is necessary to deal with situational and psychodynamic factors, such as unexpressed anger or dissatisfac-

tion, that interfere with the woman's sexual response.

Discussion

Although hypnotherapy often is useful in the treatment of sexual dysfunction, the mechanisms by which this effect is achieved are not clear. Theories of hypnosis range from the neodissociation theory of Hilgard to the role-playing theory of Sarbin and the human-potential theory of Barber. Few hypnotic theories emphasize possible physiological factors, although work based on Pavlov's approach speaks to cortical excitation and inhibition. A psychostructural approach to the hypnosis theory, suggested by Crasilneck and myself,[13] emphasizes the intrapsychic, interpersonal, and possible neurophysiological factors underlying the phenomena of hypnosis. Although psychological changes can account for much hypnotic phenomena, other factors must be involved in those cases of hypnotic removal of warts, improvement in dermatological conditions, and other bodily changes not ordinarily under conscious control.

The relation of biofeedback to hypnosis is an exciting interface. Biofeedback often works best when patients do not respond to hypnotherapy,[24] possibly because the techniques of biofeedback leave the person clearly in charge of the process while many people mistakenly view hypnotherapy as control by the therapist. In some subjects vascular changes can be produced through hypnotherapy or biofeedback training, even though the subject has no conscious knowledge of how this control is exercised. One woman suffering from Raynaud's disease learned to raise her hand temperature at will from a baseline of 72° to 90° with biofeedback training. It is possible that similar unconscious influence of vascular flow could be involved in the successful hypnotic treatment of sexual dysfunction, particularly secondary impotence, even though the decrease of performance anxiety, a self-image change, seems to be the dominant factor.

Summary

When there is no organic etiology, secondary impotence or orgasmic dysfunction often are the result of performance anxiety, although unconscious factors of greater or lesser importance also may be involved. Conscious but unadmitted situational factors may be important. Changes in dominant ego-image, as at marriage or the birth of a child, may cause problems of integrating the alter-ego shadow image and may interfere with normal sexual expression. Hypnotherapy is a useful treatment for many sexual dysfunctions that do not require prolonged psychotherapy. Hypnosis is a specialized technique and should be used within a framework of comprehensive care that also allows for other forms of treatment when indicated. Although most changes achieved through hypnotherapy are psychological, little understood physiological factors also may play a significant role.

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Etiologic factors of hypercalcemia in breast cancer

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Hypercalcemia remains a common problem in patients with breast cancer. The differential diagnosis must include bone metastases, ectopic parathyroid hormone production syndrome, and parathyroid adenoma, as well as secondary factors such as estrogen therapy. Periodic reassessment of this problem is essential as new methods become available. In a series of 32 patients seen consecutively in two years, etiologic factors other than osseous metastases per se were identified in nearly 50% of the cases. Hyperparathyroidism resulting from a parathyroid adenoma was identified in ten cases.

Hypercalcemia remains a common and serious problem in patients with breast cancer.[1-3] Hypercalcemia of variable degree occurs in 10 to 40% of cases of breast cancer when osseous metastases are present. Severe hypercalcemia occurs in 5 to 10% of cases, necessitating treatment of the biochemical abnormality itself.

While the hypercalcemia is usually attributed to osseous metastases, other causes of hypercalcemia,[4] such as ectopic parathyroid hormone production and primary hyperparathyroidism,[5-7] are receiving increasing attention. Whereas many patients with osseous metastases never develop hypercalcemia, the pathogenesis by which elevation of the serum calcium occurs in some patients has not been clarified. Factors such as estrogen therapy,[8] dehydration, and limited physical activity have been shown to precipitate hypercalcemia in certain patients with bone involvement. Periodic reassessment of this problem is essential as new methods for measuring substances such as parathyroid hormone, prostaglandins, and cyclic AMP become available.

This report presents an analysis of 32 cases seen during a two-year period, and describes a spectrum of etiologic factors which may produce hypercalcemia in patients with breast cancer. These cases are classified into four categories: (1) a syndrome of extensive osseous metastases, 17 cases; (2) primary hyperparathyroidism, 10 cases; (3) ectopic parathyroid hormone production, 3 cases; and (4) a second malignancy, not of breast origin, 2 cases.

Fig 1 lists the 17 cases characterized by extensive osseous metastases. These women ranged in age from 22 to 69 years, with a median age of 47. Six patients were less than 40 years of age. The disease-free interval, the duration from diagnosis of the primary breast cancer to the initial discovery of metastatic disease, varied from 0 to 10½ years with a median of 1 year. Patients with slow-growing cancers as well as rapid clinical courses are included in this series. The highest serum calcium level was 25.6 mg/100 ml, with a median of 16.0 mg/100 ml.

The duration of hypercalcemia was quite variable. The duration refers to the entire period during which hypercalcemia remained a clinical problem, including days when the serum calcium level may have decreased to normal levels transiently as a result of treatment. The cases could be roughly divided into two groups: (1) those in which hypercalcemia lasted for one week or less, six cases; and (2) those in which hypercalcemia persisted for longer than a month, ten cases. Patient number 15 had two periods of hypercalcemia separated by a nine-month period when her breast cancer was responding to a combination of adrenalectomy and chemotherapy.

All 17 of these patients had extensive osseous metastases with roentgenographic evidence of involvement of skull, ribs, spine, pelvis, humeri, and femora. Not a single patient in this group had a solitary or sparse involvement. Although the osteolytic pattern predominated (seen in 12 patients), 4 patients had a mixed picture of lytic and blastic lesions.

An attempt was made to assign precipitating factors in these patients. In three patients, hypercalcemia developed within one week after initiation of therapy with diethylstilbestrol. Their ages were 56, 62, and 69 years. Four patients were hypercalcemic on their initial visit to M.D. Anderson Hospital, although on referral none were known to have hypercalcemia. No known precipitating cause could be discerned in these patients. In two cases, hypercalcemia developed while the patients were undergoing diagnostic studies which may have produced some degree of dehydration, while another patient had repeated enemas for constipation. One patient became hypercalcemic when bed rest was initiated on admission, another upon sustaining a pathologic fracture, and another after the first cycle of combination chemotherapy. In one young patient, elevations of serum calcium levels appeared to correlate with the administration of various sedatives, and in another when her osseous metastases inexplicably changed from lytic to blastic.

Fig 2 presents the clinical course of these patients. The onset of hypercalcemia does not necessarily indicate a dire prognosis, provided that the treatment for the breast cancer is successful. Five patients are known to be alive 7½ months to 31 months after diagnosis of hypercalcemia. Six patients still had elevated calcium lev-

1. Syndrome of extensive osseous metastases. Factors related to hypercalcemia.

Case	Age (Years)	Disease-free Interval (Months)	Highest Ca Level (mg/100 ml)	Duration of High Ca Level	Bone Metastases Pattern	Precipitating Factors
1	45	11	>15	5 D	Lytic	Initial
2	62	26	15.3	7 D	Mixed	DES
3	56	13	15.5	15 D	Lytic	Dx WU
4	44	20	18.8	7 M	Lytic	FAC
5	49	0	20.3	3 M	Lytic	Enemas
6	22	7	18.8	3 D	Lytic	Dx WU
7	26	2	>15	2 M	Lytic	Bone fracture
8	55	0	25.6	10 M	Blastic	Lytic to blastic appearance
9	56	126	20.1	6 W	Mixed	DES
10	28	64	13.2	7 W	Lytic	Hospital
11	59	16	12.5	2 D	Mixed	—
12	69	24	15.9	7 D	Lytic	DES
13	47	8	12.8	5 D	Lytic	Initial
14	31	12	16.0	5 W	Lytic	Sedative
15	49	7	17.8	9 D, 3 M	Lytic	Initial
16	35	41	16.7	3 M	Lytic	—
17	37	9	18.5	6 W	Mixed	Initial
Median	47	12	16.0	5 W		

D: Day
W: Week
M: Month
Initial: Hypercalcemia detected on initial clinic visit
DES: Diethylstilbestrol
Dx WU: Diagnostic workup
FAC: Combination chemotherapy consisting of 5-fluorouracil, adriamycin, and Cytoxan
Hospital: Immobilization upon hospitalization

els when they died with breast cancer obviously unresponsive to treatment.

We identified ten patients with breast cancer in whom primary hyperparathyroidism was diagnosed. This large number of cases is certainly not representative of the usual population of breast cancer patients, because patients are specifically referred to this institution for neck catheterization for parathyroid hormone levels and for parathyroid surgery. However, we identified two patients who were found to have primary hyperparathyroidism upon referral here for treatment of breast cancer. Both patients presented with advanced inoperable primary breast cancer and had hypercalcemia when first evaluated. The first patient was initially treated with combination chemotherapy and the hypercalcemia had been attributed to bone disease. However, hypercalcemia persisted even after three cycles of chemotherapy which caused significant improvement in the breast cancer. Parathyroid hormone levels were elevated, and a parathyroid adenoma was excised successfully. Primary hyperparathyroidism was suspected initially in the second patient because of absence of osseous metastases. A parathyroid adenoma was excised after several cycles of chemotherapy.

Among the other eight patients, four were referred for parathyroid studies or parathyroid surgery, with a history of mastectomy for breast cancer in the distant past, and four presented with breast cancer with histories of parathyroid surgery.

2. Syndrome of extensive osseous metastases. Treatment of metastases and outcome.

Care	Treatment for Breast Cancer	Current Status	Survival After High Calcium Levels (Months)	Cause of Death
1	FAC-BCG	Alive	7.5+	—
2	Prednisone	Alive	14 +	—
3	FAC-BL	Alive	12 +	—
4	FAC-BCG	Dead	7	↑ Ca
5	ACFTOR→ Androgens	Dead	3.5	↓ Ca
6	FAC→ Hypox	Dead	4	Cancer
7	VAC-FUM-BCG	Dead	1.5	↑ Ca
8	ACFTOR	Dead	10	↑ Ca
9	FAC	Dead	4	Drug toxicity
10	Ooph-FAI-BL	Alive	10.5	—
11	FAC-BCG	Dead	3	Cancer
12	Prednisone	Dead	12	Cancer
13	Ooph-VAC-FUM	Alive	31 +	—
14	VAC-CMF	LFU	—	—
15	ADR-ACFTOR	Dead	24	↑ Ca
16	ADR→ CFP	Dead	3	↑ Ca
17	XRT+PRD	Dead	1.5	↑ Ca

A. Acronyms for combination chemoimmunotherapy
FAC: 5-fluorouracil, adriamycin, Cytoxan
VAC: Vincristine, adriamycin, Cytoxan
ACFTOR: Ftorafur, adriamycin, Cytoxan
FUM: 5-fluorouracil, methotrexate
FAI: 5-fluorouracil, adriamycin, ifosfamide
CMF: Cytoxan, methotrexate, 5-fluorouracil
CFP: Cytoxan, 5-fluorouracil, prednisone

B. Abbreviations
BCG: Bacillus Camille-Guerin (immunotherapy)
BL: BCG plus levamisole
ADR: Adrenalectomy
XRT: Radiation therapy
PRD: Prednisone
Hypox: Hypophysectomy
Ooph: Surgical castration

C. Symbols
→: Subsequent therapy after failure of prior therapy
↑: High
↓: Low

Three cases were included in the ectopic parathyroid hormone production syndrome. One patient, previously reported,[4] had hepatic metastases, producing a parathyroid-like substance. Another patient with extensive liver metastases and no abnormalities seen on bone x-rays did not have adequate studies for parathyroid hormone levels, and she died at home. A third patient developed hypercalcemia terminally, with explosive growth of breast cancer on the chest wall and in the liver.

Cancer of a primary site other than the breast was noted in two other patients. One 52-year-old woman presented with a serum calcium value of 16 mg/100 ml one year after mastectomy for breast cancer. Mottling of the right femur was noted on roentgenograms, and a biopsy revealed histiocytic lymphoma. In view of elevated parathyroid levels, ectopic parathyroid hormone production by lymphoma appeared to be likely. The second patient presented with metastatic carcinoma in the lymph nodes and with an unknown primary; she is included here since breast cancer appeared most likely at autopsy, although no definite focus of carcinoma was noted in breast tissue. The pathogenesis of hypercalcemia was not well defined, but she had severe bone pain and a positive bone scan, though x-rays showed no abnormalities, at the onset of hypercalcemia.

In summary, 32 patients with the combination of breast cancer and hypercalcemia seen during a two-year period were available for analysis. They were divided into four main categories based on etiologic factors. More than half of the patients were found to have extensive bone metastases as the primary condition to explain the development of hypercalcemia. In more than half of these, precipitating causes such as estrogen therapy, dehydration, and change in the bone metastases could be identified. Solitary and sparse bone involvement was distinctly unusual in this group of breast cancer patients and hypercalcemia associated with less than widespread bone involvement could be attributed to causes other than direct destruction of bone by cancer.

Primary hyperparathyroidism appears to be fairly common in breast cancer and further studies are indicated to explain this association.

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Pseudo-obstruction of the colon as a postpartum complication: case report

Terry M. Lindsey, MD; Opta Lea Braun, MD; Antonio Carrasco, MD; Ernest Poulos, MD

A case of pseudo-obstruction of the colon occurring in the puerperium is presented and the literature concerning this variant of Ogilvie syndrome is reviewed. A new method of treatment, decompression through the colonoscope, is suggested.

The diagnosis of intestinal obstruction during pregnancy can be confusing in light of the frequent abdominal complaints associated with pregnancy. Constipation and crampy abdominal pains are common symptoms that are easily dismissed. Likewise, in the postpartum period, similar symptoms are usually treated with reassurance in a young, vaginally-delivered woman who has had no previous surgery. A recent case has directed our attention to a rare condition mimicking intestinal obstruction—namely, pseudo-obstruction of the colon.

Case Report

A 33-year-old primigravida was followed in the St Paul Hospital Clinic for the last three months of her pregnancy. She experienced no prenatal complications except for occasional pains in the right lower quadrant of the abdomen. She had never been ill previously and had had no surgical procedures. She was delivered of a 3.12 kg (6 lb, 14 oz) female infant after a satisfactory labor. The delivery was with mid forceps rotated left occiput transverse to occiput anterior. In her postpartum course, the patient experienced persistent abdominal pains that were at first thought to be normal postpartum pains. She was passing flatus and tolerating her diet well until 36 hours after delivery when she began to show signs of abdominal distention. At 48 hours postpartum she was given a Fleet enema without relief of abdominal distention or cramping pain. She was nauseated but had not vomited. Physical examination revealed blood pressure 130/90 mm Hg, pulse rate 86/minute, and respirations 22/minute, in an acutely ill woman. Examination of the abdomen revealed distention with hyperactive high-pitched tinkling bowel sounds. There was mild tenderness to palpation of the abdomen. The uterus was firm but nontender. Laboratory results revealed hemoglobin, 13.5 gm/100 ml; hematocrit, 39%; white blood count, 14,000/cu mm, with 86 segmented cells, 1 band, 12 lymphocytes, and 2 monocytes. Urinalysis was normal. Roentgenograms of the abdomen revealed a massively dilated cecum and ascending and proximal transverse colon (Fig 1). A barium enema x-ray study showed reflux of barium into some of the gas-filled loops of the large intestine (Fig 2).

Consultation with the surgical service was obtained and, because of the massive distention of the right side of the colon and the threat of cecal rupture, it was decided to operate on the patient. At surgery a massively distended cecum and right and proximal transverse colon were encountered. No point of mechanical obstruction could be identified. A tube cecostomy was performed to decompress the cecum, and the abdomen was closed. Postoperatively the patient did well and was discharged.

Discussion

A review of the literature regarding pseudo-obstruction of the colon revealed only one other case occurring after vaginal delivery. In 1961, Hirsch reported a case of a 41-year-old woman who suffered a spontaneous cecal perforation in association with

adynamic ileus of the colon after a vaginal delivery.[1] Several instances of postpartum pseudo-obstruction of the colon have been encountered and reported following cesarean section, including several cases associated with cecal perforations.[2-4]

Attention was first directed to pseudo-obstruction of the colon by Ogilvie in 1948.[5] He described two cases of apparent intestinal obstruction in which surgical exploration revealed a normal colon but extensive and unsuspected malignancy. The location of the malignancies high in the retroperitoneal region led Ogilvie to postulate that malignant infiltration of the sympathetic nerve chains led to unopposed parasympathetic innervation of the distal colon and consequently simulated an organic obstruction. Dunlop, MacFarlane, and Kay reported four other cases of false colonic obstruction and termed theirs "Ogilvie syndrome."[6,7] Today this term is loosely applied to cases of false colonic obstruction whose etiology is not malignancy. Probably a more easily understood and better descriptive term is "pseudo-obstruction of the colon."

In recent years there has been a renewed interest in pseudo-obstruction of the colon. A case of segmental colonic ileus during the puerperium was described by Laufe and Meyers in 1958.[8] Cannell and Tovee, in

1. Plain roentgenogram of the abdomen demonstrating massive cecal dilation with gas dilating ascending and proximal transverse colon.

1957, reviewed ten cases of large-bowel obstruction (8 of these following cesarean sections) which they attributed to the pressure from the involuting uterus within the pelvis.[9] Reports of cecal perforation after cesarean section in the absence of mechanical colonic obstruction have been made.[2,4,10]

In 1962, Stephens analyzed four cases of intestinal pseudo-obstruction and listed a number of probable precipitating factors, primarily stressing incipient renal failure.[11] In 1971 Wanebo and associates presented 23 patients with pseudo-obstruction of the colon and expanded the list of etiologic factors to include fluid and electrolyte imbalances, extra-abdominal trauma, intra-abdominal vascular or inflammatory diseases, and drugs and toxins.[12] Nine of their patients underwent surgery, and there were four postoperative deaths. Four patients had tube cecostomy performed under local anethesia. Five patients had an exploratory laparotomy, and of these, three required tube cecostomy, one a sigmoid colostomy, and in one no decompression was necessary. Of the 14 patients treated conservatively, 2 died.

Wojtalik and associates, in 1973, reviewed all previous cases of cecal perforation associated with adynamic ileus of the colon, and stressed the high mortality rate of

2. Barium contrast study revealing free passage of barium into dilated transverse colon and even into the cecum.

46%.[13] In three of the four cases they reported, the patients died. In 1974 Norton and coworkers reported four cases of pseudo-obstruction of the colon and recommended right colectomy with ileostomy as the treatment of choice.[10] Later in 1974, Adams reviewed 20 cases of adynamic ileus of the colon and suggested tube cecostomy as the treatment of choice.[14] Finally, Goldstein and Babu in 1974 reported five cases of colonic ileus and stressed the lack of a unifying concept to explain the pathophysiology of the condition.[15]

In our case, surgery was performed because we thought that this patient's condition could represent volvulus of the cecum. Certainly volvulus of the cecum is a recognized surgical emergency which requires immediate operation.[16] In retrospect, we think that this patient's problem might have been managed by attempting decompression through the colonoscope. To our knowledge, no colonoscopic decompressions of colonic ileus have ever been attempted.

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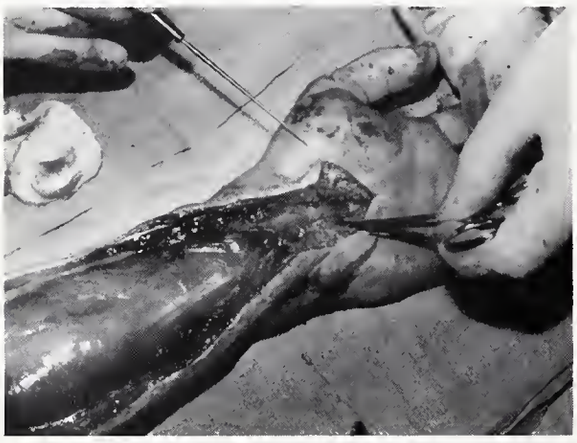
Intra-arterial drug abuse

Steven J. Blackwell, MD; Ted T. Huang, MD; S.R. Lewis, MD

Impending gangrene of an upper extremity following an intra-arterial injection of drug substance is infrequent but requires immediate medical attention. Intense burning pain, cyanosis, and mottled discoloration of the skin, with diminished skin sensation of the extremity involved, suggest an ischemic crisis. Once the diagnosis is established, the treatment should aim to reduce the exent of ischemic sequelae by preventing thrombosis. The use of surgical decompression and continuous sympathetic nerve block to enhance peripheral blood flow will add to the benefits of the approach.

Ischemic crisis following an intra-arterial injection of various drugs is an infrequent but dramatic sequela to the drug addict's habit. The paucity of such cases in the literature points out that the drug addict is generally careful in choosing his injection route. Such inadvertent injections are made either into anatomically aberrant superficially lying arteries, or into deeper arteries when there is a venous obliteration. The veteran addict is certainly familiar with the disastrous outcome of deliberate intra-arterial injection and avoids the special sensation derived from such abuse known as a "flash" or "hand trip."

1. In addition to an extensive volar fasciotomy, the decompression of the carpal tunnel was necessary. A segment of ligament was excised to assure the release.



Clinical findings of an acute ischemic crisis of the hand and associated pathological findings are well delineated in small series reported in the literature. Various methods of therapy have been advocated but with varying degrees of success. The main objectives in treating these patients are to allay pain, disrupt vasospasm, prevent thrombosis, and minimize tissue swelling and thus prevent the development of Volkmann's ischemic contractures and gangrene.

Case Reports

Case 1: A 22-year-old man, known to abuse drugs, injected a tap water suspension of 50 mg clorazepate (Tranxene) into his left brachial artery. Immediately following the injection he felt intense pain involving the entire left forearm and the hand, and there was rapid onset of mottled skin discoloration over the upper extremity. The patient was seen in the emergency room approximately five hours later. At that time, in addition to an edematous swelling of the hand, the fullness of both radial and ulnar pulses were found to be diminished on palpation. However, the capillary refill in the nailbed was thought to be adequate. Although the motor function of the hand was intact, the response to a pin prick was diminished.

Initially, he was treated medically with papaverine, 60 mg intravenously every four hours, and heparin, 5,000 units every six hours. The plastic surgical service was consulted because of further progression of edema and the onset of diffuse hypesthesia of the hand. Volar fasciotomy and release of the carpal tunnel became necessary ap-

proximately 36 hours later (Fig 1). Treatment with heparin and papaverine was not resumed since the patient had regained both sensation and resolution of swelling following the decompressive procedure. A partial thickness skin graft was applied five days later. The hand function was satisfactory when the patient was dismissed 16 days later (Figs 2, 3).

Case 2: This 19-year-old man injected an unknown quantity of Vicks Medihaler into his right brachial artery 24 hours before being referred to our hospital. He said that pain and cyanosis in the hand and forearm began almost instantaneously after the injection. At the time of initial examination, cyanosis and edema were present in the entire forearm and hand. The radial pulse was practically nonpalpable and the sensation over the fingertips was absent.

Initial management consisted of hand elevation, intravenous fluids, tetanus prophylaxis, and antibiotics. The Plastic Surgical Service was consulted because of progressive loss of motor function and sensation in the entire extremity. Decompressive fasciotomy of the right forearm and wrist was carried out 12 hours after admission. The response was immediate and dramatic. The fasciotomy wound was later covered with a skin graft. No functional impairment was noted at the time of dismissal from the hospital.

Case 3: A 19-year-old woman, a known drug addict, injected tap water suspension of a meperidine tablet, 50 mg, into the left radial artery. Her hand became cyanotic almost instantaneously, but the discoloration later disappeared. However, the onset of swelling over her hand and forearm, reappearance of cyanotic discoloration, and severe pain and numbness over the fingertips prompted her to seek medical attention 14 hours after the injection (Fig 4).

Examination of the hand showed a diffuse tenderness, cyanosis, mottling and edema involving the entire hand and wrist. Although the radial pulse was palpable, it required a Doppler flow meter to detect the blood flow through the ulnar and digital vessels. The treatment for this patient consisted of an injection of 20 cc of 0.75% bupivacaine (Marcain) every six hours, through a catheter placed around the left axillary artery, for the next 48 hours. Two doses of methyl prednisolone (Solu-Medrol), 1 gm, were given 12 hours apart. Additionally, the patient was given 500 cc low molecular weight dextran each day for

2. Appearance of the left hand and forearm six months following operation.

3. Functional impediment was found to be minimal.

the next three days. Other adjunctive measures included elevating the hand and prohibiting cigarette smoking. Cyanosis and coldness of the fingers disappeared almost immediately with the commencement of treatment, and complete recovery of the hand functions was apparent on the sixth hospital day. No residual disturbance in the use of the hand was noted when the patient was seen six months later (Fig 5).

Comments

Clinical Findings

Depending upon the drug substance and the method of injection, the clinical manifestations after an intra-arterial injection of a drug can be quite variable. Typically, however, there is an immediate burning pain involving the entire extremity distal to the site of injection. It is characteristically excruciating and diffuse. With the onset of blanching and cyanosis of the skin, the hand usually becomes cool (Fig 4). Reactive hyperemia, considered to be a favorable prognostic sign, can occur occasionally following the onset of blanching and cyanosis. Edema is quite common and becomes apparent during the next 24-hour period and may involve the entire extremity. The fullness of radial and ulnar pulses determined by palpation, in spite of general belief, cannot be used to assess the extent of vascular injury. Signs of motor weakness or frank motor paralysis, and ischemic contracture or gangrenous change of the distal extremity, represent the end-point of ischemic destruction.

Pathophysiology

Phenomenon of arterial spasm elicited by drug injection is now believed to play only a minor role in influencing the ultimate fate of the extremity involved, since such phenomenon has never been demonstrated in either experimental animals or human subjects.[1-5] The basic pathologic mechanism, on the other hand, is thought to be that of a severe chemical vasculitis involving the endothelium, subendothelium, and the muscularis layer.[1-5] The magnitude of injury is, furthermore, closely related to the concentration, volume, pharmacologic activities of the drugs, microembolizing effects of the additives in the solution, anatomic sites of injection, and condition of the blood flow at the time of injection.[5-8] The pH of the solution injected appeared to play no role in the pathogenesis of vasculitis.[5] Edematous swelling caused by the extravasated fluid will further compromise the flow of blood in smaller vessels because of the tissue rigidity. Tissue thromboplastin, liberated as the sequela to the vascular injury, will activate the clotting mechanism, and this is thought to be the prime factor in initiating vascular thrombosis.[8] Crystallization of injected drug substances within small vessels will further aggravate the process of intravascular clotting.[5,9,10] The onset of arterial thrombosis, in actual practice, can be delayed as long as ten days following the injection of the drug.[6] Any compromise in blood supply to neural structures will undoubtedly lead to nerve impulse conduction interference, thus resulting in the usual findings of paresthesia, anesthesia, paresis, and ultimate muscle atrophy.[1] Edematous swelling of the muscle mass may be further aggravated by shunting of the blood flow initiated by thrombotic obliteration of vascular trees. The resulting high pressure within a confined muscular compartment will cause further embarrassment of vascular supply to muscle groups such as intrinsic musculatures of the hand, resulting in the classic Volkmann contracture deformity.

Treatment

Various methods of management have been advocated in treating patients who have reactions to an intra-arterial injection of a drug substance. The basic objectives of treatment, however, are to prevent throm-

bosis, promote vasodilatation, and to restore blood flow. The ancillary measures should include prevention of edema and alleviation of pain and anxiety.

I. Prevention of Thrombosis

Since anticoagulation therapy has been shown to be effective in altering the course of gangrenous changes, prevention of vascular thrombosis is initiated by administering heparin as soon as the diagnosis of an intra-arterial drug injection is established and the basic clotting laboratory studies are completed.[6-8] When a prolonged use of anticoagulant is necessary, drugs such as Coumadin may be substituted after 24 to 48 hours of heparin therapy. The use of low molecular weight dextran has been advocated by some investigators to reduce thrombotic sequela.[11] More recently, a regimen of constant regional intra-arterial infusion of Thrombolysin (human fibrinolysin, profinbrinolysin with streptokinase)[10] followed by a constant intravenous infusion of heparin has been advocated.

II. Vasodilatation and Restoration of Blood Flow

A sympathetic nerve block via brachial plexus or stellate ganglion is effective in providing maximum vasodilatation and should improve peripheral blood flow.[5,6] This is accomplished by placing a polyethylene catheter along the side of the brachial plexus. A long-acting local anesthetic agent such as bupivacaine given every six to eight hours through this catheter can achieve nerve block in a patient who may be receiving an anticoagulant, since the catheter can be left in place for several days. A continuous nerve block will provide additional analgesic effect.

Limb elevation will promote the venous and lymphatic drainage, thus minimizing the edematous swelling. Aiming to restore the blood flow in the injured limb, intra-arterial administration of various drugs has been advocated. These include papaverine, tolazoline, ethanol, aspirin, amyl nitrate, reserpine, lidocaine, and procaine. Since spasm of the vascular tree is not the prime factor in the pathogenesis of gangrene, the true value in using these drugs remains unknown even though, experimentally, they have shown some effects.[3,5] Animal trials with intra-arterial injections of a steroid (dexamethasone), on the other hand, have shown encouraging results.[4] To promote a better blood flow, many people suggest that adequate hydration must be restored and maintained to minimize the hemoconcentration, thus reducing the sludging phenomenon within the vascular tree. The effectiveness of this regimen, however, remains unknown.

III. Fasciotomy

Surgical decompression of the extremity by means of a fasciotomy is considered mandatory when findings of vascular embarrassment become apparent. The findings of neurological involvement, such as intrinsic muscular paralysis and skin anesthesia, are indications for immediate surgical intervention. The fasciotomy incision in the forearm should be continuous, should extend well into the proximal palm, and should include a sectional removal of the transverse carpal ligaments to relieve the median nerve en-

4. Appearance of the hand 14 hours after the injection of meperidine into the left brachial artery.

5. Functions of the left hand returned completely.

trapment (Fig 1). Separate longitudinal incisions may be made over the dorsum of the hand when the interosseous muscle compartments are involved. To release the vascular embarrassment in the digits, it may be necessary to extend the incision into the midlateral aspect of the fingers. The Doppler flow meter can be of help in determining the timing of surgical intervention and adequacy of blood flow following surgical decompression. Thrombectomy or endarterectomy, on the other hand, appears to provide no appreciable benefits in predicting the outcome.[6,8]

Other measures such as tetanus prophylaxis and antibiotic therapy should be included in the regimen. Adequate documentation of the disease process by means of photographs or drawings is recommended.

Summary

Impending gangrene following abuse of a drug by intra-arterial injection is infrequent but requires immediate attention. Burning pain, cyanosis, and mottled discoloration of the skin with diminished skin sensation strongly suggest an ischemic crisis. Vasculitis with progressive thrombosis of the vessels is considered to be the primary factor responsible for the disease entity. The therapeutic regimen should, therefore, aim to reduce the extent of ischemic sequelae by preventing thrombosis. The use of surgical decompression and continuous sympathetic nerve block to enhance peripheral blood flow will provide additional benefits. Our experience in managing three patients has been presented and discussed.

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Serum bile acid levels in hepatobiliary disease

Philip L. Howard, MD

Serum bile acids can now be measured by radioimmunoassay. Elevations of bile acid levels have been reported in chronic active liver diseases, and in some cases the bile acid level appears to be a more sensitive indicator of liver dysfunction than measurements of bilirubin, enzymes, or bromsulphalein retention. An intravenous bile acid tolerance test increases the sensitivity even more. Whether the measurements of serum bile acid levels could ultimately replace some existing liver function tests must await further clinical trials.

Elevations in total serum bile acid levels in association with diseases of the liver have been recognized for many years.[9] Because of the difficulty in measuring individual bile acids, little information has accrued on the relationship of the specific bile acids to different hepatobiliary diseases. With the recent introduction of radioimmunoassay for bile acids, however, new knowledge is rapidly accumulating regarding the significance of elevations of serum bile acid levels.

The bile acids are produced in the liver from the metabolism of cholesterol. Cholesterol is converted into the primary bile acids, cholic acid and chenodeoxycholic acid, in liver mitochondria and microsomes where 7-alpha-hydroxylation is the rate limiting step.[1] The primary bile acids are conjugated with either glycine or taurine and excreted into the bile. In the lumen of the small bowel, conjugated cholic and chenodeoxycholic acids are further metabolized by bacterial enzymes to form the two principal secondary bile acids in man, deoxycholic acid and lithocholic acid. Deconjugation also takes place in the bowel lumen due to the action of bacterial enzymes. Most of the bile acids, both primary and secondary, are reabsorbed in the distal ileum. The portal vein, therefore, carries a relatively high concentration of bile acids. However, the liver efficiently removes most of the reabsorbed bile acids, thus keeping the systemic serum concentration of bile acids at a relatively low level. The total bile acid pool in man consists of about 40% chenodeoxycholic acid, 38% cholic acid, 19% deoxycholic acid and 3% lithocholic acid along with smaller quantities of several others.

In the small bowel the bile acids act like detergents. Monomers of the bile acids bind together to form amphilic micelles with hydrophobic interiors and hydrophilic exteriors. They thus can bring lipid soluble materials into solution and are important in the absorption of the lipid soluble vitamins.

Highly specific radioimmunoassays have recently been developed for the principal bile acids in man.[3,7,10] Antibodies can be produced in rabbits using albumin conjugates of the bile acids.[8] These assays now allow the rapid and specific measurement of serum bile acid levels.

Elevations of serum bile acids are found in most patients with hepatobiliary disease. In one study, glycosulfolithocholic acid was elevated in the serum of all patients with alcoholic cirrhosis, hepatitis, cholestasis, and hepatic malignancy.[2] Glycocholic acid elevations occurred in 97% of the patients with hepatobiliary diseases. Interestingly, glycochenodeoxycholic acid, although elevated in most cases of liver disease, tended to be within the normal range in patients with alcoholic cirrhosis.

Were these the only findings, elevations of serum bile acid levels would merely provide another test of liver function to add to the already existing battery of such tests.

The potential importance of bile acid assays, however, lies in the fact that abnormally high levels of bile acids can be detected in the serum of patients with chronic liver disease when other conventional laboratory measurements are within the normal range. In one study of patients with biopsy-proven chronic liver disease, 33 of 38 patients had elevations of glycocholic acid levels when measurements of bilirubin, serum protein, alkaline phosphatase, prothrombin time, bromsulphalein, and serum glutamic oxalacetic transaminase were normal.[4]

The development of a bile acid tolerance test has further increased the sensitivity of bile acid assays to abnormal liver function. Injected glycocholic acid has a half life of only about 2.6 minutes in normal people. After the intravenous injection of 5 μmole/kg body weight of glycocholic acid into normal subjects, within ten minutes the serum level has dropped to less than 1 μmole/liter.[5] Disappearance of injected glycocholic acid was delayed in 9 of 11 patients with biopsy-proven chronic liver diseases when bilirubin, alkaline phosphatase, serum glutamic oxalacetic transaminase, and bromsulphalein measurements were all normal.[6]

There is some indication that the degree of elevation of glycocholic acid may have prognostic implications. At the time of histologic remission of liver disease in one study, those patients who remained in remission had serum glycocholic acid levels of less than twice the upper limit of normal. However, in 9 of 16 patients who had recurrence of disease, the glycocholic acid level was greater than twice the upper limit of normal even in the presence of normal liver biopsies.[4]

The natural history of most new tests usually follows a pattern of initial enthusiasm followed by increasing skepticism terminating in rejection of the test altogether. At the present time, radioimmunoassay of the serum levels of various bile acids seems to offer one of the most sensitive means of detecting abnormalities in liver function. In addition, the degree of elevation may provide some information on prognosis. Currently we are in the stage of initial enthusiasm. Whether this enthusiasm is justified will become apparent as more information accumulates on the use of serum bile acid assays in the diagnosis of liver diseases.

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Community recruitment of family physicians from family practice residencies

Charles B. Jones, MD

The author studied the practice location decisions of 16 physicians who completed an approved family practice residency program in 1977. He then tried to discern important and successful factors a community should emphasize while seeking family physicians. A physician recruitment model for communities is included.

Whether one defines the problem as physician shortage or maldistribution, the Texas Medical Association's "Opportunities for Practice in Texas" shows many cities and towns wanting to increase their number of physicians. Are there ways in which these communities, hospitals, and physicians can more effectively recruit family doctors? Certainly, the geographic, medical, cultural, economic, and other features of a certain locale are determined. However, is it not possible to develop recruiting techniques to enhance the chances of recruiting success?

This study was conducted to scrutinize the decision-making process of a group of family practice residents and their spouses to discern common features of recruitment and decision making. Many studies[1] have provided detailed profiles of the doctors most likely to practice in rural areas. Knowing that physicians practicing in small towns most often grew up in small towns must be of little comfort for an overworked, harried, rural general practitioner. The physician wants to know how to increase chances of finding a partner, and that is the purpose of this study.

Methods

Of the 19 third-year family practice residents at John Peter Smith Hospital in Fort Worth, 16 entered private practice in July 1977 and 3 assumed positions in emergency rooms. Between December 1976 and February 1977, about six months before entering practice, each resident and his wife were interviewed in their home. In most cases, this was three to four months after the final practice location decision was made. I designed and administered a standardized, subjective questionnaire. A broad range of questions sought personal background information about the couples and objective and subjective information pertaining to location choice. Each resident also provided a critique of frequently used recruiting techniques.

Fourteen of the 16 residents had participated in a similar study during their internships.[2] Data from that study were loaned by the senior author, Marion Zetzman, DrPH, and each participating resident was allowed to compare earlier attitudes and indicate any changes. These comparison data are now being evaluated.

Findings

Of the 16 residents in the sample, 80% had begun seriously searching for a practice location at the beginning of the third year of residency, July 1976, and 80% had essentially made up their minds by November 1976. The median number of practice opportunities evaluated first hand was 5 with a range of 1 to 20. Six of the residents knew no one, even tangentially, in their practice location before making initial contact.

The residents surveyed represented a wide range of hometown populations, the median being 14,800. However, seven were from cities with a greater than 50,000 population, and 11 of the wives were from similar size cities. The median population

of towns chosen by the residents was 17,500 with 86% of the residents going to towns with populations less than 32,000 and 25% going to towns of less than 7,500. Two residents returned to their hometowns, and two chose their wife's hometown.

When asked to compare their hometowns and practice location choice on a scale of 1 to 4 (significant similarities between the towns down to no similarity, respectively) in the context of all US cities, the average correspondence was 2.1 for residents and 2.4 for their wives.

One of the primary concerns of the present study was the evaluation of the major considerations in the location decision. Each resident and his wife were asked to answer jointly: "What do you think most influenced you to decide to go where you are going?" The question was purposefully left open-ended and a rank-order response was requested. Responses were then categorized by the author, and results are shown in Fig 1.

Proximity to a metropolitan area is often cited as a major determinant in the practice location decision, and respondents in this survey corroborated this concern. The average distance to a metropolitan area was 49 miles with a range of 25 to 90 miles.

As interns, the respondents unanimously indicated preference for a three- to five-physician group as a desired type of practice situation. However, as residents, 3 of the 16 chose solo practice in order to go to the town of their choice. Ten entered existing groups, 2 entered separate, new two-physician partnerships, and 1 entered a new three-physician group. The ages of the physicians in the groups they joined ranged widely without a pattern emerging. Fifty percent of the residents described the clinic facilities they had chosen as less than one year old, while 25% felt their clinics to be old.

None of the residents chose towns with fewer than two active physicians, and none indicated a choice of location on an altruistic basis.

Income was low on the list of decision determinants with four of the 16 choosing their least lucrative offer. Eighty percent stated that they were influenced by a guaranteed income. Nine residents opted for situations with a guaranteed salary, and four were in situations with an income subsidy for their first one to six months in

1. Major considerations in location decision.

Consideration	Priority Rank 1st	2nd	3rd	4th
a. Location, geography, topography, etc.	7	1	-	1
b. Medical concerns other than group practice	4	1	4	-
c. Proximity to family	2	3	2	1
d. Size of town	-	2	4	2
e. Other	2	2	-	1
f. Affinity for town	1	2	-	4
g. Proximity to metropolitan area	-	1	2	2
h. Opportunity for group practice	-	1	3	-
i. Need for physicians	-	1	-	1
j. Schools	-	1	-	-

practice. The average of guaranteed salaries was $38,000 per annum.

The role of the wife and family in the location decision has been inadequately explored in the past. Certainly the sentiment is frequently voiced that if the wife isn't happy there, the doctor won't be either. What about the wife's *positive* contribution to the decision? Each wife was asked for the three or four things that most impressed her about the town chosen. They most often mentioned the town's geographic location and topography. Other considerations were proximity to family (often noted as "close, but not too close"), and the impression of the site as a "pretty town." Other categories of comments in descending order of frequency were size of town, proximity to metropolitan area, climate, presence of college or university, and favorable impression of local physicians and/or their wives. Schools were mentioned with some frequency, but did not appear to have been an overriding consideration. On average, those residents with children (14 of the 16) have preschool aged children, and children per se appeared to be a minimal consideration in the location decision making except perhaps as this concern might be included tacitly in "proximity to family."

2. Recruiting techniques.

Technique	Average Efficacy*
a. Letters sent to hospital, posted on bulletin board	2.2
b. Unsolicited letters sent directly to resident	2.2
c. Unsolicited telephone calls	2.8
d. Recruiting trips	3.1
e. Journal advertisements	1.7
f. State medical society opportunities list	2.1

*Average efficacy of recruiting technique scored on a scale of 1 to 5: no attention given to this technique (1) up to positive response made (5). N = 16

In nine instances, the decision on location was felt to have been reached with equal consideration of the resident's and wife's individual concerns. Two couples felt clearly that the husband's considerations had taken precedence, and five indicated that the wife's considerations had taken precedence. However, only six wives felt that *they* had been recruited at any of their prospective locations. Comments often made by wives regarding their favorable impression with a location were "cordial, candid, open, and not ostentatious." The most succinct commentary on the positive recruitment of the wife was, "They acted as though what I had to say was important."

All residents felt their location choices to be close to recreational opportunities. Recreational opportunities were a highly significant factor in the decision of 7 residents, of moderate importance to 6, and of minimal importance to 3. "Good hunting and fishing" is a frequently touted advantage for many areas in their recruiting brochures, but only three residents indicated hunting or fishing as pastimes. Outdoor activity, such as camping, was more frequently mentioned. Lakes retained their traditional appeal.

Recruiting Techniques

Each resident was asked to evaluate several recruiting techniques from his experience on a scale of 1 to 5, with 1 being "never received" or "totally ignored" and 5 meaning "made a response such as return letter, call or visit." Averages are listed in Fig 2. Item d refers to physicians traveling to John Peter Smith Hospital house staff quarters to talk with any resident who cared to seek information about

the location. Phone calls emerged as the most effective recruiting technique, and probably would have had a much higher numerical average except that only 7 residents received unsolicited calls. Each of these seven gave a 5 to this recruiting technique.

Nine of the 16 residents made the initial contact in their ultimate practice location. Although most had been provided with food and lodging during visits, and many had received travel compensation, very few residents indicated being more than minimally influenced by any compensation received from recruiters. When reimbursement was offered before a visit and then that compensation was neglected, a strong negative influence was generated. No reneging clinic was ever selected.

Nine of the residents felt that moonlighting at a location might be a good introduction to a town or clinic. Five others qualified their assent by saying it would be useful "if the town or clinic had anything to show off." Ten indicated they had seriously considered sites where they had moonlighted, but among the final locations, only one resident indicated having moonlighted there before his decision was made. If the decision came down to two equivalent towns, ten residents would choose the one which had weekend coverage for local physicians with moonlighters.

Many residents believe that some local family physicians see their service as volunteer preceptors for the model clinics of the family practice residency programs as a vehicle for recruiting. Four residents felt this to be highly valuable, 5 of intermediate value, and 7 of little value. Only one resident had chosen a clinic from which a physician served the local model clinic as a preceptor.

Discussion

One finding of consequence emerging from the study is the recruiting season. Initial contacts made before June of the second year of residency were frequently delayed in follow-up, and contacts made after the close of the season were inevitably doomed. The author has noted by contact with several classes of residents that the limits of the season vary from year to year and are apparently in response to peer pressure, however subtle.

A large percentage of the residents went to non-metropolitan areas even though approximately one-half of the residents came from towns of a similar size. By the end of residency, virtually all residents and wives have been living in metropolitan areas for ten or more years. This may be a reflection of a larger number of young families migrating away from urban areas, and if so, holds great promise for the health concerns of rural Texas.

The similarities of residents' and wives' hometowns and practice locations are not surprising, but may be a key to effective recruiting. Recruiters may want to concentrate on residents and wives who are apt to find a particular location like their hometowns.

The data presented in Fig 1 appears to easily answer the question of whether a family physician chooses a site from geographic or medical practice considerations. While this finding is similar to that of the Rand study for general practitioners,[1] excessive interpretations should be avoided. The interplay between location and practice concerns is subtle and defies discrimination in most instances. A community or clinic can recruit on strengths, encouraging a prospect to consider reasonable compromise options. This principle is well illus-

trated by data on the desired proximity to metropolitan areas and preference for a three- to five-physician group: although these were high indicated priorities, many residents chose locations more than 50 miles from a large city, and 3 were willing to enter solo practice to achieve some other goal.

High beginning income as a practice incentive was a small factor among the sample group. However, many residents who began at below average expected earnings noted a strong economic base in their communities and felt this a worthy compromise. Many making such a choice indicated having selected an area "needing doctors" which is to say that waiting rooms should not be too empty for too long.

Paying attention to the wife is a natural starting point for enhancement of a recruiting campaign. Her personal interests and concerns should be discovered and dealt with in an open, cordial manner. The spouse is potentially the most powerful ally a town can have in attempts to secure a physician.

Recruitment Model

The suggestions for a recruitment program are distilled from the survey data, residents' and practicing physicians' suggestions, and personal experience. The recruiting effort can be broken into three stages: initial contact, first visit, and decision making. More energies are expended in the first two of these stages because a prospect never reaches decision making until after the initial contact and first visit have been successfully negotiated.

A frequent suggestion is the development of a recruiting team. Responsibilities are delegated for the making of the initial contact, handling of arrangements for the first visit, escorting of the spouse, and follow-up on the first visit. Many of the responsibilities can be performed by the same person. Some clinics prepare clinic information brochures and send chamber of commerce information about the community for the prospective physicians.

A technique, developed by the author, for identifying most likely prospects involves cooperation of the state medical society and/or Academy of Family Practice and the individual residency programs. In May of each year, a list of consenting second year family practice residents should be assembled and published in an appropriate statewide bulletin. The list should include some biographical information about each resident and spouse and an indication of geographical preference for practice. Utilization of the information would allow recruiters to select residents most likely to choose their community while avoiding potentially low-yield prospects.

After the most promising candidates have been determined, each should be called by a physician on the team. The pharmacist or chamber of commerce president will never command the attention of a resident as well as a practicing physician. As one resident put it, "It's hard to say 'no' to a doctor over the phone." The call should be forthright and candid. However, even in desperate situations, it's probably best not to sound desperate. If any interest is aroused, an offer to send information about the clinic is made. Sending a local newspaper may provide a window to the community unobtainable by any other medium. There should be no pressure for a visit on the initial call, but if a visit is not arranged with an interested resident at this time a follow-up call in a week is appropriate. If there is little interest on the second

call, a recruiter is dealing with a low-yield candidate.

The style of first visits will vary widely but keeping formality to a minimum will make the atmosphere more homelike. Some residents will wish to stay in a motel while others will be comfortable in a home. These accommodations and travel plans are arranged before the visit. A recruiter should not be surprised if the resident wishes to pay all expenses. Presumably this is an effort to maintain some autonomy.

Tours of the hospital and clinic are arranged, and most prospects will want to see schools and homes. A member of the team most familiar with the schools and homes is the person for that job, and it is usually not the physician. Many residents in the present survey are deeply religious individuals and this may be an area of interest. If the doctor is similarly devout, chances for success with this candidate are enhanced.

In the initial visit, every effort should be made to learn the unique interests and concerns of the prospective couple and show how the community can fulfill those needs. If these demonstrations are impossible on the initial visit, arranging for them on subsequent visits is an excellent tactic. Frequently overlooked is the prospective couple's desire to meet other young, professional couples in the community. Often, these young couples will be a most effective drawing card. In recruiting, pressure, desperation, and unrealistic promises are almost always self-defeating.

If there has been no response or a noncommittal response from the candidate one week after the visit, a casual letter should be sent noting that often a candidate and community will not fit each other, and that this may be apparent from the outset. This will give an honest candidate the chance to end things at that point, with no hard feelings, permitting the community to move on to more productive prospects and not dissipate its energies.

By this time, the decision making stage has been reached, and there is no further use for a recruiting formula other than persistent candor among all participants.

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Charles B. Jones, MD, F. Hood Craddock Memorial Clinic, 308 West Hickory, Sylacauga, Ala 35150.

Medical Newsmakers

CHARLES B. MULLINS, MD, Dallas, has been named to fill a liaison position between The University of Texas Southwestern Medical School and Parkland Memorial Hospital. He serves as Southwestern's new associate dean for clinical affairs at Parkland and as director of medical affairs for the hospital. ALBERT D. ROBERTS, MD, Dallas, former associate dean for clinical affairs at Southwestern, has been named associate dean of the medical school.

JOHN J. KAVANAGH, MD, San Antonio, has been appointed deputy commissioner for mental health services of the Texas Department of Mental Health and Mental Retardation.

New officers of the Texas Society of Internal Medicine are: president, J. BURKE MORRISON, MD, San Antonio; president-elect, JAY J. WELCH, MD, Houston; and two members of the board of directors, MAURICE HERRING, MD, Dallas, and J. PATRICK BRENNAN, MD, Fort Worth.

COLEMAN JACOBSON, MD, Dallas, has been chosen second vice-president of the Southern Medical Association (SMA). Dr Jacobson is a staff member at Parkland Memorial Hospital and Presbyterian Hospital and serves as chief of dermatology service at Children's Medical Center. He is past chairman of the SMA Committee on Meeting Arrangements.

HARRIS HAUSER, MD, Houston, has been elected to the executive board of the Society for Computerized Tomography and Neuro-Imaging.

Two new administrative positions have been filled at The University of Texas Medical Branch at Galveston. ALVIN L. LE BLANC, MD, professor of obstetrics and gynecology, has been appointed medical director of the UTMB hospitals and associate dean for graduate medical education.

WILLIAM D. SCHOTTSTAEDT, MD, director of the Area Health Education Center program at UTMB, is the new associate dean for continuing education in the school of medicine.

JACK L. TURNER, MD, Fort Worth, has completed a third tour in Brazil with Project Hope.

KENNETH D. GAVER, MD, Austin, announced his resignation as commissioner of the Texas Department of Mental Health and Mental Retardation effective Feb 28. Dr Gaver said he wanted to pursue professional activities in the private sector.

Southwest Medical School at Dallas has honored A.J. GILL, MD, on his retirement with the establishment of the A.J. Gill Professorship in Pathology. Dr Gill is former dean of the medical school and serves as vice president of the Texas Medical Association.

ROBERT A. MACLEAN, MD, Houston, has been appointed to serve on the Houston-Galveston Area Council's Area Health Commission.

BENJAMIN RIGOR, MD, chairman of anesthesiology at The University of Texas Medical School in Houston, has received the Outstanding Filipino Overseas in Medicine Award from the Philippine government. Dr Rigor is past recipient of the Apolinario Mabini Teaching Award for excellence from the Association of Philippine Practicing Physicians in America. He is a diplomate of the American Board of Anesthesiology and the Pan American Association of Medicine and a fellow of the American College of Anesthesiology.

Blue Cross and Blue Shield of Texas has elected FRED W. RODGERS senior vice president. His responsibilities include directing the activities of the administration, claims, and data processing divisions.

This asthmatic isn't worried about his next breath...

he's active he's effectively maintained on

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Each capsule or tablespoon (15 ml) elixir contains theophylline (anhydrous) 150 mg and glyceryl guaiacolate (guaifenesin) 90 mg. Elixir: alcohol 15%

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Indications: For the symptomatic treatment of bronchospastic conditions such as bronchial asthma, asthmatic bronchitis, chronic bronchitis, and pulmonary emphysema.
Dosage: Initial: Adults: 1-2 capsules or 1-2 tablespoonfuls elixir every 6-8 hours, children 8-12: 1 tablespoonful or one capsule every 6-8 hours and children under 8: 3 to 5 mg theophylline/kg body weight every 6-8 hours. Theophylline dosage may be cautiously increased to 2000 mg/24 hr in adults or 7 mg/kg in children; monitoring of serum theophylline levels at higher dosages is recommended.
Precautions: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.
Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea and vomiting. The frequency of adverse reactions is related to the serum theophylline level and are not usually a problem at serum theophylline levels below 20μg/ml.
How Supplied: Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.

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Does it influence your choice of a peripheral/cerebral vasodilator*?

- Vasodilan—compatible with coexisting diseases
- Vasodilan—compatible with concomitant therapy
- Vasodilan—compatible with your total regimen for vascular insufficiency

***Indications:** Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.
Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

Dosage and Administration: Oral: 10 to 20 mg., three or four times daily.
Intramuscular: 5 to 10 mg. (1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.
Parenteral administration is not recommended in the presence of hypotension or tachycardia.
Intravenous administration should not be given because of increased likelihood of side effects.

Adverse Reactions: On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.
Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.
Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

Supplied: Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

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VASODILAN®
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Texas physicians take major role In curbing medical care costs

Concern about medical care costs is increasing—and the Texas Medical Association is facing the problem squarely. The Association has begun by embarking on present and long-range programs to contain medical care costs and by calling on every Texas physician to help.

The price of medical care

Medical care prices are increasing both in Texas and the United States. A simple glance at medical statistics shows:

- Medical care costs are rising much more rapidly than the overall rate of inflation in the economy
- The rising cost of medical care is impacting the disposable income of every American family[1]
- National medical care expenditures in 1976 reached $139.3 billion, or $638 per person, 14% higher than the $122.2 billion spent for medical care in 1975

Many factors contribute to the growing total expenditures for medical care:

- Inflation accounted for 53% of the increase in national health care expenditures between 1965 and 1975,[2] and 75% of the increase since 1974[3]
- Population growth accounted for 8.7% of the increase in expenditures since 1965[2]
- People today use more professional health care services[4]
- The Medicaid and Medicare programs have been a significant factor in cost increases since their enactment in 1965[2]
- Government regulations to control the cost and quality of care impact on the costs[5]
- Physicians generally are not fully informed about the cost of medical goods and services they commonly order for their patients[6]
- Competitive wage rates for hospital employees have been increasing[7]
- Professional liability premiums cost $1.5 billion in 1975, but the cost of defensive medicine has been estimated at $3 to $5 billion[8]

TMA's number one priority

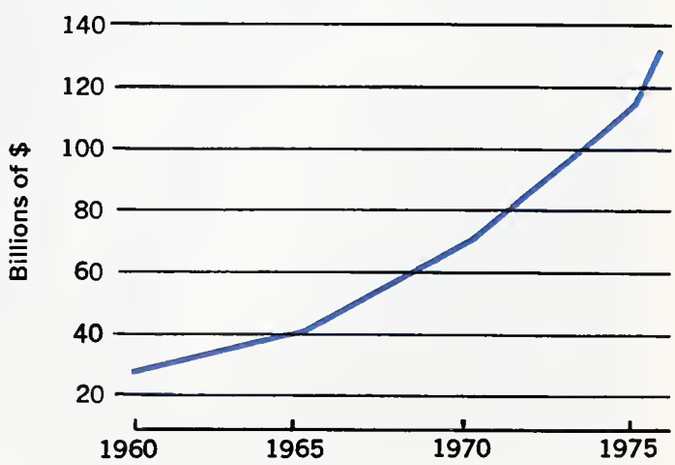
Development of an effective, positive program to contain medical care costs has been identified as the top priority of Texas doctors for 1978. Texas Medical Association president John M. Smith, Jr, MD, and the Executive Board fully concurred that a leadership role by Texas doctors was essential to help resolve the complex problem.

In November 1977, the TMA House of Delegates approved a 22-point program on what physicians can do to control costs. Meeting in Austin in January, TMA's Executive Board received and approved plans of TMA councils to curb medical care costs.

"TMA's efforts will be directed toward activities to control or reduce costs without sacrificing quality of care or involving rationing of care," Dr Smith, a San Antonio family physician, said.

Clearly recognizing that physicians do not have total responsibility for health care costs, Dr Smith stated, "The medical profession in

Cost of Health Care



Source: US Social Security Administration

Texas has the responsibility to face this issue squarely and to develop our own effective cost control programs.

"Certainly soaring health care costs are not in the patient's best interest," Dr Smith said.

Naturally, health care providers believe that some heavy-handed legislative proposals also are not in the best interest of quality health care, he added. "But, it would be unfair and unwise of us only to criticize and not offer constructive suggestions.

"It is imperative that we take action, not only because of political dynamics, but also because costs are soaring for provider and patient alike."

Physicians are an important factor when it comes to cost. Physicians' services accounted for 18.9% of the total expenditure for medical care in 1976. Through the other services they order for patients, they influence an additional 50-60% of total medical care expenditures.

The Texas Medical Association has begun action on several fronts to combat the health care cost increases. Four councils and several committees have major assignments to assist Texas physicians and patients on their mutual concern. The success of the cost containment program will depend on active participation of the county medical societies and hospital medical staffs, Dr Smith said.

Additionally, specialty societies are joining in the development of a comprehensive, effective Texas program. The TMA is asking specialty societies to develop their own cost containment programs, and offer specific suggestions and recommendations to members.

The physician's role

The individual physician has little control over the prices of many of the inputs into the production of medical services. The costs of the personnel and the facility are influenced by community standards and the level of economic activity in the area. The costs of equipment and supplies reflect national market conditions.[9]

However, there are areas where the individual physician can do something about the increasing costs of medical care.

The TMA is asking physicians to:

- discuss fees with patients
- establish a policy that office visits be paid at the time the service is rendered
- direct bill patients when it is necessary to bill
- be aware of and sensitive to the costs of labo-

TMA president John M. Smith, Jr, MD, addressed the Panhandle District Medical Society meeting in Fall 1977. The medical profession in Texas has the responsibility to face the issue of medical care costs squarely and to develop effective cost control programs, Dr Smith said.

ratory, x-ray, and other ancillary services in the hospital

- examine hospital admission procedures to make sure they do not result in unnecessary hospitalization
- participate in health planning
- participate in utilization review programs controlled by physicians

When a doctor refers a patient to another physician or another institution, patient records should be forwarded promptly to avoid the expensive duplication of tests and services.

Whenever possible, physicians should utilize extended care facilities, nursing homes, and home health care services.

Physicians should look at patients' hospital bills and seek ways to eliminate possibly unnecessary procedures or substitute less expensive ones without decreasing quality of care.

In 1975, medical practice expenses amounted to an average of 43% of physician's before-tax income.[9]

More efficient, cost-saving office procedures are being promoted, such as patients paying for office visits at the time of service, and physicians providing information that will allow patients to submit their own insurance claims. When patients submit their own insurance forms, personnel and clerical costs are reduced.

To assist physicians in making their practices more efficient, the Association annually sponsors "Financial Control of Your Medical Practice" workshops. This year they will be in Lubbock June 6, in El Paso June 7, in Houston June 8, and in Dallas June 9. They are conducted by Conomikes Associates and the cost is $62.50.

The role of the county medical societies

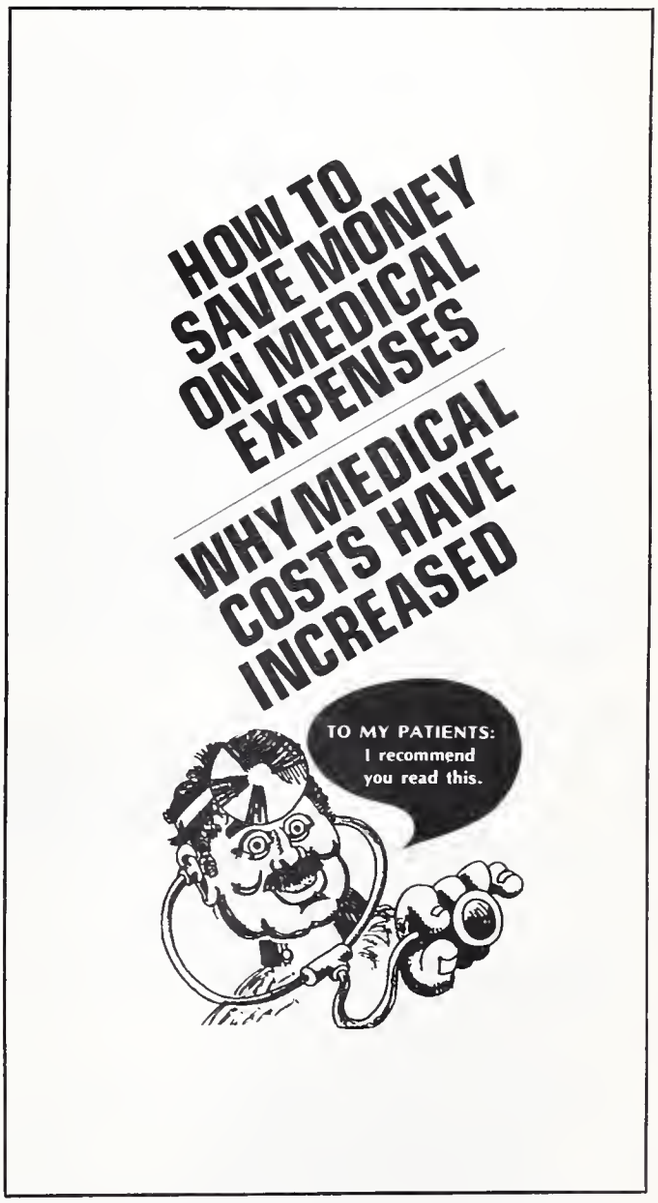
The cost containment efforts must begin with individual physicians at the community level. TMA county medical societies are being asked to use local bulletins to make physicians aware of rising costs, and to establish local voluntary cost containment panels. County medical societies are also being asked to increase their involvement in health planning efforts at the local level, particularly as part of the Health Systems Agency in the region.

Members of county medical societies are being asked to make medical cost presentations to local civic and professional groups, and to inform the news media of state and local cost containment efforts.

At least two county medical societies have already begun their efforts at cost containment. The Harris County Medical Society and the El Paso County Medical Society have established local committees on cost containment and have developed tangible programs for physician participation.

The El Paso Commission on Medical Costs has been established to inform the public about the increasing costs of medical care. Commission members including physicians, hospital administrators, and insurance representatives will present informational talks to civic organizations, church groups, and other audiences.

In Harris County, a brochure, "How to Save



The Harris County Medical Society has developed the brochure, "How to Save Money on Medical Expenses, Why Medical Costs Have Increased," for physicians to distribute to their patients.

Money on Medical Expenses, Why Medical Costs Have Increased," was developed for physicians to distribute to patients. The landslide response of the Harris County Medical Society membership in purchasing the brochure for their patients resulted in a sell-out of the first 100,000 copies within two weeks. Making these pamphlets available was the first effort of the new Cost Curtailment Committee which is made up of representatives of specialty societies. The brochure explains the factors that have led to increases in medical care costs including inflation, equipment, insurance, and continuing medical education. The brochure also offers to patients preventive health care tips about obesity, smoking, alcohol, rest and exercise, proper use of a hospital emergency room, and insurance coverage.

The Harris County Medical Society has developed and distributed a Physician's Code of Cost Curtailment for Harris County physicians. Among other things, the code suggests to physicians to use office facilities or hospital out-patient services whenever practical, to not allow hospital insurance coverage to influence commitment to deliver quality care in a prudent manner, and when appropriate to accept laboratory and x-ray tests already done by a referring colleague.

The society also is considering the printing of a physician's pledge to patients for Houston physicians to give their patients. The pledge includes a promise from physicians to patients to be aware of current hospital costs, review hospital bills, discuss fees, and refrain from allowing inflation to result in exaggerated increases in charges. The county medical society also is developing a public education program, "Citizens Concerned About the Cost of Health Care" which would provide informational panels for the Houston area to discuss the qualities of the American health care system.

"The Buck Starts Here," a film by Blue Cross-Blue Shield directed to physicians, is also available for showing at county medical society or hospital medical staff meetings. For copies of the film, county medical societies should contact the TMA Communication Department, 1801 N Lamar Blvd, Austin, 78701, and hospital staffs should contact Henry Denning, Blue Cross-Blue Shield of Texas (214) 741-8728. The film is available in 16 mm and ¾ inch video tape cassette.

"Rx for Health Care Costs," an informational brochure for physicians, is available from the TMA Communication Department. The brochure suggests different ways of reducing medical care costs including learning hospital costs, teaching cost awareness, limiting diagnostic tests, reducing hospital utilization, and discouraging patient demands. The brochure also includes directions to physicians for keeping a cost log.

The role of hospital medical staffs

Hospital care, the largest single item in the nation's health care bill, (40% of the total) cost an average of $16 per patient day in 1950, and $175 in 1976.[11]

The Texas Medical Association is asking each

COMPARISON OF SHORT-TERM GENERAL HOSPITALS IN TEXAS WITH NATIONAL AVERAGES

Hospitals in Texas treat slightly more patients per thousand population than the national average:

	TEXAS	UNITED STATES
Admissions per thousand population	175	157
Patients in Texas hospitals have a significantly shorter average length of stay resulting in fewer patient days per person:		
Length of stay	6.7	7.7
Patient days per thousand	1,173	1,209
Patients are treated less expensively in Texas:		
Total expense per person	$178	$208
Total expense per admission	$1,016	$1,323
Total expense per patient day	$152	$172
Hospital average wages are lower in Texas:		
Average wage	$7,849	$9,336

Source: Texas Hospital Association

hospital to establish a joint committee of physicians and hospital administrators to examine how costs can be controlled, and asking chiefs of staff to become more active in the financial decision-making process in the hospital.

Each hospital chief of staff is being asked to examine admission procedures by day of week to determine if abuse is occurring.

In some instances, the day of admission can significantly affect the length of stay. Similarly, physicians can contribute to more efficient discharge procedures in the interest of making certain that there is no undue delay.

The medical staff and hospital administration should be sensitive to the costs of certain hotel services found in many institutions including color television, telephones, and elaborate private rooms, which do not contribute significantly to patient care, but which do increase costs.

TMA is asking all hospital chiefs of staff to require that all scientific papers and conferences presented at the hospital include information on the costs of the particular services or treatments being discussed.

TMA also will ask all speakers and authors of papers and presentations at the 1978 Annual Session in San Antonio to include information on costs of services and treatments.

Hospital chiefs of staff also will be asked to assist in the implementation of the TMA professional liability risk control program. The program has been developed by the TMA Committee on Professional Insurance for Texas hospitals.

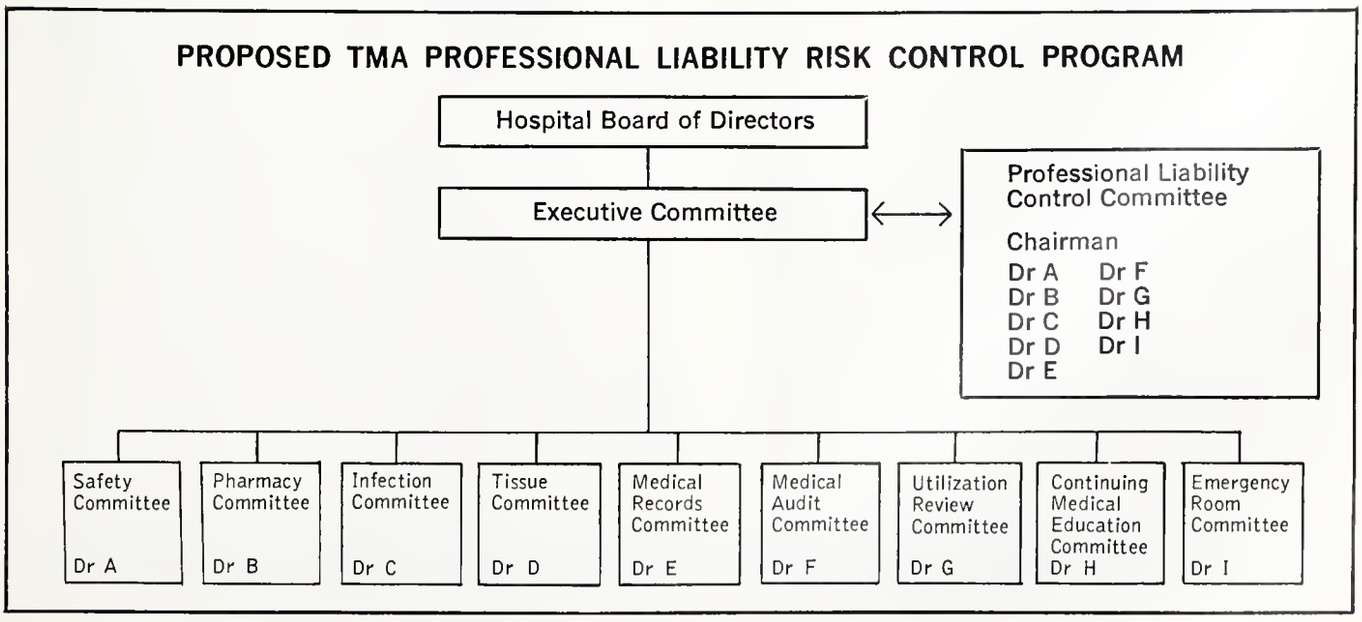
Under the proposed program, a professional liability control manual would be compiled for distribution to Texas hospitals. The manual would include a compilation of cases categorized by subject, for example, medical records, drug reactions, infections, emergency rooms. It would include only those cases which result from an inappropriate procedure or activity in the hospital. The manual would be designed to cover major subject areas and frequent occurrences only. Each standing hospital committee would include a professional liability representative, who would also be a member of the hospital's professional liability control committee. The representative would review malpractice case material supplied by TMA.

By learning from the mistakes of others it is hoped that the same situations can be avoided by other Texas hospitals, thus resulting in savings in claims and lawsuits, two of the largest contributors to rising medical care costs.

How much does it cost?

Many physicians may not have accurate knowledge about the prices of the goods and services they order for patients. The tendency of some physicians to overlook cost considerations is the result of one medical tradition which emphasizes giving the best care that is technically possible with "the state of the art" being the only legitimate and explicitly recognized constraint.

Considerable economic waste may be the result of serial laboratory testing orders which are not stopped after all useful information has been acquired.



There are at least four questions physicians can ask themselves when ordering services:

1. What will the test tell me that I do not already know?
2. What will the test cost the patient?
3. At that price, and in the present setting, is the test worth buying?
4. Has the test been ordered previously by someone else?

The physician in the office setting also has many opportunities to affect medical bills. Efficient practice management techniques can save everyone money. Greater use of the telephone may permit physicians to treat some patients more efficiently, and in some cases avoid the necessity for an office visit, particularly when the physician is familiar with the patient's history, and the patient's symptoms suggest an unambiguous problem.

Utilization of the hospital, laboratory, and x-ray are probably the three areas where the greatest impact can be made. Here are some examples:

- if each patient-care physician in the United States had ordered ten fewer diagnostic x-rays in 1975, $70 million would have been saved
- if each patient-care physician in the United States had ordered 100 fewer laboratory tests in 1975, $118 million would have been saved
- if each patient-care physician in the United States had shortened just one patient's stay in the hospital by just one day, $41 million would have been saved.[10]

Studies show a wide range of discrepancies in physicians' knowledge of the costs of medical procedures. A survey, conducted by Russell B. Roth, MD, past American Medical Association president, showed that many physicians are not adequately informed about the costs of the hospital goods and services they routinely order for their patients. Among the answers, 109 responses were correct, 329 were too high, and 361 were too low.[6]

In another study several years ago, 40 physicians who were members of the staff of a 500-bed community hospital were surveyed to see how much they knew about the cost of 20 routine goods and services they commonly ordered for

Questionnaire:

Dear Doctor:

Attached is a list of items commonly ordered by physicians for their hospitalized patients. Would you assist me in a small study relating to the economics of hospital care? Please indicate, in the space next to each item, your estimate of the cost to the patient, or his insurance company, for each service. In each instance, please relate your answer to your estimate of the hospital billing for this item rather than to the wholesale, or other, price to the hospital, where applicable.

	RANGE OF ANSWERS		ESTIMATES		
	(correct)		Over	Under	Correct
1. Daily charge for a semiprivate (two-bed) hospital room	$ 48 00	$30.00-$ 60 00	13	24	3
2. Routine chest x-ray	10.00	10.00- 35.00	32	0	8
3. Barium enema study	35.00	15.00- 50.00	8	21	11
4. Electrocardiogram	15.00	10.00- 50.00	19	2	19
5. Electroencephalogram	25.00	15.00- 75.00	22	4	14
6. Operating room charge for first hour	115.00	20.00- 110.00	0	40	0
7. Blood transfusion—first unit	29.00	12.50- 75.00	17	23	0
8. 1000 cc intravenous saline solution	7.00	2.00- 15.00	22	17	1
9. Excretory urogram (five films)	39.70	10.00- 60.00	6	34	0
10. Prothrombin time	5.00	2.00- 12.00	14	12	14
11. Glucose tolerance test (three-hour)	19.00	5.00- 30.00	12	28	0
12. Pathology report on a lymph node or comparable biopsy	16.00	7.50- 50.00	16	22	2
13. Urine culture with sensitivity report	10.00	3.00- 20.00	14	14	12
14. Sternal marrow biopsy	42.00	3.00- 50.00	4	36	0
15. Nembutal 1½ grains at hs	0.10	0.05- 4.00	38	2	0
16. Morphine sulfate ½ grains (SC)	1.00	0.10- 6.00	12	12	16
17. Ampicillin 500 mg—(single dose) oral	0.70	0.30- 10.00	32	8	0
18. Garamycin—80 mg ampule (IM)	14.40	0.75- 16.00	3	36	0*
19. IPPB—per treatment	5.00	2.00- 25.00	27	5	8
20. Foley catheter (five cc, size 18)	7.00	1.00- 14.00	18	21	1

From: PRISM September 1973

*One questionnaire left blank

This survey, conducted by Russell B. Roth, MD, past American Medical Association president, showed that many physicians are not adequately informed about the costs of the hospital goods and services they routinely order for their patients. Among the answers, 109 responses were correct, 329 were too high, and 361 were too low.

their patients. Eighty percent of the physicians underestimated the aggregate billings by an average of 17.4%. They were especially uncertain in their estimates of drug costs.

Insurance

The Texas Medical Association is coordinating the development of a model health insurance policy which will provide financial incentives for utilization of whatever is the most appropriate and cost effective type of care, rather than relying on hospitalization of patients.

The Council on Medical Service and Insurance has invited representatives of Blue Cross/Blue Shield and the Health Insurance Association of America to discuss the model health insurance policy at a March 4 meeting in Dallas.

Health insurance companies also are asked to encourage the public and employer groups to purchase policies with deductibles and co-insurance provisions which will help protect against over-utilization of benefits. These insurance companies are encouraged to provide coverage for diagnostic tests and services on an outpatient basis rather than only as part of in-hospital care.

TMA is also recommending that policies recognize the value of preventive care. By providing coverage for those facets relating to preventive care, it is possible to reduce major expenditures for illness.

The role of medical schools

With Texas medical school representatives, the Association is encouraging the development of cost awareness and effectiveness in courses and training.

Each institution is being encouraged to develop information for practicing physicians, house officers, and clinical faculty on the cost of medical procedures. Texas medical schools are developing articles on the cost of special procedures, diagnostic evaluations, and other programs for monthly publication in *Texas Medicine*.

The TMA Medical Student Section and Resident Physician Section are conducting a study of medical student and resident physician awareness of costs as a special project.

"Medical students hold the key to future success in cost containment," Dr Smith said. "The good habits and theories they grasp now on doctor-patient relationships can mean lower costs in the future. Before a medical student's career concludes, a physician's ideas on prescribing and testing ultimately will affect the flow of several hundred thousand dollars between the physicians, the patient, and third parties who pay part of the bills."

State and national cost containment panels

Cost containment is a paramount issue in all government health care programs. The American Medical Association, American Hospital Association, and Federation of American Hospitals, and the Texas Medical Association and Texas Hospital Association and other health groups working together have developed voluntary cost containment panels at both the national and state levels to offer voluntary solutions to the problem. Similar panels have been developed in other states.

The Carter Administration has been striving to place restraints on hospital, medical, and health care costs. "This gives the private sector a great opportunity to respond with cost effective programs," Dr Smith said.

The National Steering Committee on Voluntary Cost Containment has voted to encourage a reduction in the rate of increase in hospital expenditures of two percentage points a year over the next two years; no net increase in hospital beds during 1978; and a reduction in new capital investment during the coming year. The Texas Voluntary Hospital Cost Containment Panel voted tentatively to adopt the national panel's recommendations.

Rep Dan Rostenkowski, an Illinois Democrat and chairman of the Subcommittee on Health of the Committee on Ways and Means, has proposed acceptance of the goals set forth by the national panel. Rep Rostenkowski accepted the voluntary proposals and agreed to refrain from pushing for passage of restrictive government controls at this time. However, as a warning to the voluntary sector that results of the voluntary program will be closely observed, he said he will ask his subcommittee "to develop a legislative proposal which would include only standby hospital cost controls." These standby controls, he said, would be implemented only if the rate of increase in hospital costs does not decline by two percentage points in 1978 and an additional two percentage points in 1979.

"I sense the impact of President Carter's nine percent cap solution could be paralleled to the impact of the old Selective Service System. Nothing stimulates volunteers more quickly than the genuine fear of a draft.

"But, whether it was that fear of a draft or not, the industry's expressed willingness to hold down total cost has added an entirely new element to the hospital cost equation that we have struggled to balance on Capitol Hill," Rep Rostenkowski said.

"In my view, if the industry is able to achieve this goal, when the reductions are measured against an appropriate figure for the increase that has already occurred in 1977, no federal regulatory program should be put into effect," Rep Rostenkowski said.[11]

Conclusion

Dealing with medical care costs isn't going to be easy.

There will always be decisions for physicians to face, but an all-out effort by every Texas physician to make these decisions in a cost-effective manner can be the key to success of the massive voluntary program. Consider these:

- decisions to hospitalize rather than treat the patient on an outpatient basis, and the length of the period of hospitalization

C. Lincoln Williston, (left) Texas Medical Association executive director, and O. Ray Hurst, Texas Hospital Association president, answer questions at a news conference held in the Texas Capitol in February to discuss the groups' cost containment programs and projects.

- decisions regarding the techniques chosen for diagnosis including the ordering of tests and x-rays, and the number and types of each selected
- decisions to utilize one of several alternative means of treating a condition or illness
- decisions regarding the prescription of drugs

The suggestions may seem to be simple concepts, but they are also easy to ignore. Cost containment is not new. It is just more important than ever before. The president of the Texas Medical Association has stated it succinctly:

"There have been some unpleasant confrontations between organized medicine and people who want to control costs through massive government regulation. No love is lost between the camps, but I think we have to remember that many of our opponents are working from the same basic philosophy that we are. We all want what is best for the patient," Dr Smith said.

The public and individual patient have a very important role in controlling medical care costs. Similarly, the federal and state governments have significant responsibilities.

"Hopefully the medical profession will be able to inject some sanity into the bureaucratic thunderings of Washington. I have great faith in the physicians of Texas to handle the equally difficult, equally important battle against costs on the local level. I hope that our medical societies are worthy of your faith to deal with this issue on other fronts," Dr Smith said.

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11. Remarks of Rep Dan Rostenkowski, (D-Ill), Chairman, Subcommittee on Health of the Committee on Ways and Means, prepared for delivery before the annual meeting of the American Hospital Association House of Delegates, Feb 1, 1978.

ICA: Please take the following action with regard to my professional liability coverage:

☐ Please have an agent send application for coverage.

☐ I am presently in the JUA and would like information on converting to the ICA-JUA combination program to obtain higher limits.

Date coverage requested_____.

Name_____ M.D.

Street_____

City_____Tx. Zip_____

Phone ( )_____Specialty_____

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Date coverage requested_____.

Name_____ M.D.

Street_____

City_____Tx. Zip_____

Phone ( )_____Specialty_____

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MEDICINE AND THE LAW

JUA LIABILITY INSURANCE CONTRACT

Introduction

In the following case physicians were held bound by a JUA liability insurance contract. The court denied recovery for the return of a full premium deposit where the rates approved by the State Board of Insurance were higher than the physicians thought when application was made and the binder was issued by the JUA.[1]

Facts

The physician plaintiffs had applied for medical professional liability insurance policies on behalf of their partnership and the individual partner-physicians from the Texas Medical Liability Insurance Underwriting Association (JUA) and remitted a premium deposit payment.

The policy application signed by the plaintiffs contained the statement, "The undersigned further recognizes and agrees that such insurance as it is applied for herewith is subject to such rates, premium modifications and surcharges as are now or may hereafter be approved by the Texas State Board of Insurance."

Two days later the JUA issued and forwarded to the physicians a binder contract which contained the following special instructions: "It is understood that when the policy is issued, it will be at the rates prescribed and approved by the State Board of Insurance."

Two months later the JUA notified the physicians that additional premium payments would be required for the policies to remain in effect.

The physicians erroneously had thought the premium deposit paid was correct. The premium they paid was lower than the correct payment.

The physicians then requested return of their policies and a return of their original amount paid for premiums. The JUA, one month later, sent the physicians a refund check for only a little more than one-half of the original premium deposit payment.

The return check was calculated correctly according to the approved State Board of Insurance short rate cancellation tables. The JUA proved that Article 5.20 of the Insurance Code of Texas did not permit full return and actually prohibited any insurer or its agent from offering any rebate or reduction of the premium after the insurance has been effected.

The physicians raised the issue that they were entitled to a full premium refund. The basis of their refund claim was that there was never a meeting of the parties' minds, necessary to establish the insurance contract. According to the physicians, the parties failed to reach complete agreement due to the inconsistency between the "advertised premium rates" and the rates actually charged and approved by the State Board of Insurance.

The court ruled that the physicians were not entitled to the full premium refund, and that they had received the full refund to which they were entitled.

Discussion

The court stated that the law in Texas courts is such that where insurance premiums are fixed by the State Board of Insurance, it is not essential that the parties reach express agreement on the premium rates to be assessed. All that is required is that the subject matter of the premium be in the contract either expressly or by implied reference to official regulations.

In this case, the court found that the express reference requirement was met because both the insurance application filed by the physicians and the binder contract issued by the JUA contained reference to

Article 21.49-(3) of the Insurance Code of Texas and the JUA Plan of Operation, stating that the insurance agreement was subject to the schedule of assessments.

The JUA cited the court several cases which dealt with oral agreements providing for lower workmen's compensation premium rates than established by the State Insurance Commission wherein courts had upheld the higher rates because a rate fixed by the commission would be a part of every contract regardless of any understanding by the parties.

The court stated that under Article 5.82, Sec. 3, of the Insurance Code, the rates for medical professional liability insurance are, from a practical standpoint, ultimately fixed by the State Board of Insurance.

The court said the approved rate was the one contracted for by the physicians regardless of the physicians' mistaken impression that the advance premium was the only payment required to establish the policy.

In this case, it appeared that the physicians mistook, for whatever reason, the basic premium limits of liability of $25,000/75,000 for the rates of $100,000/300,000. The physicians stated that if they had known the correct premium rate, they would not have accepted and retained the policies. The court said that this error, regardless of who made it, would not alter the amount of the fixed premium rates approved by the State Board of Insurance.

In this case, the court found that the insurance application signed by the physicians stated a "minimum deposit premium required" and also "it is agreed that the remainder of the annual premium will be paid within twenty days after receipt of the Association's billing." The court said it was clear and unambiguous that the initial premium payment was only a deposit.

The physicians argued that the signing and mailing of the application and the subsequent issuance of the binder constituted acceptance of the physicians' offer by the JUA and thereby completed the contract. The court said that the previous court cases were not in line with the argument and that after the insurance contract is completed, the insured may not later complain that the contract was ineffective because the premium rates represented to the insured were lower than the state approved rates actually charged.

Erroneous representations, mutual mistakes, or separate understandings between the contracting parties notwithstanding, the law mandates that where the rate is fixed by the State Board of Insurance, the state approved rate is the only rate for which the parties have contracted.

The court stated that in this case because of the application and binder contract provisions, the physicians had expressly agreed to pay the state approved rates.

Conclusion

In making application for medical professional liability insurance, especially the JUA coverage, physicians should carefully read the terms and conditions of the application, as well as any binders involved. As this case illustrates, erroneous representations, mutual mistakes, separate understandings, or, misunderstandings between the physicians and the carriers, are of no force when the physician has agreed to pay the state approved premium rates by signing the application and mailing the premium deposit.

In cancellation under these circumstances, the carrier is not obligated to return the full premium on cancellations and is prohibited from doing so. The carrier must follow an approved short rate cancellation table which is never equal to the original premium cost.

Professional advice by a qualified insurance agent, accountant, or attorney should be sought if any doubt exists as to what coverage is sought and the type of policy and the premium to be paid.

Ace Pickens
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

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[1] *University Medical-Surgical Clinic v United States Fire Insurance Co*, 435 F Supp 278 (ND Tex 1977).

Deaths

Dr Anderson

A.B. Anderson, MD

Albert Burton Anderson, MD, a retired Houston surgeon, died Sept 17, 1977.
Dr Anderson, 71, was engaged in private surgical practice in the Texas Medical Center from 1948 to 1975 and served as assistant clinical professor of surgery at Baylor College of Medicine.
A native of Palestine, Dr Anderson was graduated from Yale University. He received his MD from Harvard Medical School in 1936. After a tour of duty with the Army during World War II, he joined the faculty of Harvard Medical School, where he remained until 1948.
Dr Anderson's professional memberships included Harris County Medical Society and the Houston Surgical Society. He also was a fellow of the American College of Surgeons.
Surviving Dr Anderson are his wife, Helen Adele Fisher Anderson; daughter, Star Anderson Renaudin; and two grandchildren, all of Houston.

M.C.L. Baldwin, MD

Marion Charles Ludy Baldwin, MD, a Longview physician, died Feb 3, 1977.
Dr Baldwin, 59, was born in Rock Hill, SC. He was graduated from Clemson (SC) University in 1939. He undertook premedical studies at Hardin Simmons University, Abilene, Tex, before entering UT Southwestern Medical School. He received his medical degree in 1955.
Dr Baldwin was a member of the American Medical Association and a past secretary of the Gregg County Medical Society. He also was a charter member of the Longview Community Theatre, and a member of the Longview Museum Association and the Civic Music Club. He served on the board of Gregg County Historical Foundation and was past president of Gregg County Historical and Genealogical Society.
Surviving are Dr Baldwin's wife, Jewel Baldwin, Longview; daughter, Marilyn Baldwin, Austin; sister, Virginia Marks, Rock Hill, SC; and brothers, Paul Baldwin and Lewis Baldwin, also of Rock Hill.

W.H. Bryant, MD

William Howard Bryant, MD, Rockwall, Tex, died March 15, 1977.
Dr Bryant practiced in Tyler 27 years, and retired in 1953. In the 1940s he became an independent oil operator and producer. He moved to Dallas in 1958, where he lived until moving to Rockwall in 1975.
A native of Carroll, Tex, Dr Bryant attended The University of Texas, Austin, before entering Baylor University College of Medicine, Dallas. He received his MD in 1928. His internship was at Baylor Hospital, Dallas.
Dr Bryant was a former director of the East Texas Hospital Foundation, chairman of the Public Health Committee of the Tyler Chamber of Commerce, and director of Smith County Child Welfare Unit. He also was a member of the American Medical Association and Smith County Medical Society.
Surviving Dr Bryant are his wife, Nancy Neal Bryant; son, Holland David Bryant, Shreveport, La; daughter, Mrs Barbara Herrington, Tyler; four step-children; brother, P.J. Bryant; sisters, Mrs Jewel Cagle and Mrs Laura Miller; four grandchildren, and one great-grandson.

J.L. Dean, Jr, MD

John Lake Dean, Jr, MD, a native and lifelong resident of Crockett, Tex, died April 2, 1977, at age 65.
Dr Dean was a past president of the Crockett School Board and the Houston County Medical Society, and past director of the Chamber of Commerce. He also was honored as a "Favorite Son" at Mary Hardin-Baylor College.
After his graduation from Texas Tech University in 1933, Dr Dean entered The Uni-

versity of Texas Medical Branch, Galveston. He completed his medical education in 1937. His internship was at Medical and Surgical Memorial Hospital, San Antonio.
Surviving are Dr Dean's wife, Albertine Dean; mother, Mrs Nora Dean; daughter, Mrs Wayne Williams; and sister, Mrs Lyle Thomasson, all of Crockett; sons, John L. Dean III and William Schmidt Dean, both of Houston; and five grandchildren.

S.I. Johnson, MD

Seale Isaiah Johnson, MD, a Houston resident for more than 35 years, died Aug 24, 1977. He was 74.
A native of Cookeville, Dr Johnson attended The University of Texas and received his MD from The University of Texas Medical Branch at Galveston in 1936. He remained in Galveston for an internship at St Mary's Infirmary.
Dr Johnson was a member of Harris County Medical Society, Texas Academy of Family Physicians, and the American Medical Association.
Surviving Dr Johnson are his daughter, Mrs Mary Sue Adams, Houston; sisters, Mrs George Munson, Lafayette, Calif, and Mrs Margery Rodgers, Houston; one grandchild and three step-grandchildren.

Joseph Kopecky, MD

Joseph Kopecky, MD, 90, died Feb 23, 1977, in San Antonio.
Dr Kopecky formerly was an instructor, associate professor and professor at The University of Texas Medical Branch, Galveston. In 1929, he taught in the Medical Department of the National University of Mexico as an exchange professor.
The physician was a native of Rutersville, Tex. He taught in country schools and in the State School for the Blind, Austin, before entering UT Medical Branch. He received his MD degree in 1915. His internship was at John Sealy Hospital, Galveston.
Dr Kopecky was in private practice in El Campo before he became a member of the US Army Medical Corps. He returned to El Campo in 1920 and opened his San Antonio practice in 1929. He was chief of staff and chief of the medical service at San Antonio's Medical and Surgical Hospital.
Dr Kopecky's professional memberships included the American Medical Association and Bexar County Medical Society. He was a past president of the Texas Heart Association and the International Post Graduate Assembly of the Southwest.
Survivors include Dr Kopecky's son, Joseph W. Kopecky, MD, and daughter, Mary Willis Colbert, both of San Antonio; brothers, Cyril W. Kopecky, Rowena, Tex, and Laddie George Kopecky, El Campo; sisters, Alba Heil, Temple; Valasta Rushing, Houston; and Ludma Kopecky and Lilly Heil, Austin; nine grandchildren and eight great-grandchildren.

Dr Johnson

C.H. Langford, MD

Cohen Hay Langford, MD, a physician, pharmacist, and rancher, died April 6, 1977, in Georgetown.
Dr Langford had lived in Georgetown since 1972. He practiced in Baytown 13 years and helped found the Baytown Hospital. He also had practiced in Bandera and Florence, Tex.
The doctor was born in Bandera, Tex, and attended The University of Texas and Sam Houston State Teachers College. He completed his medical education at Baylor University College of Medicine in 1930. His internship was at Hollywood (Calif) Hospital.
Dr Langford had been an honorary member of Texas Medical Association since 1952. He also was a member of Harris County Medical Society and the American Medical Association.
Surviving are Dr Langford's wife, Irene Langford, Georgetown; son, Wendell B. Langford, Belton; daughter, Mrs Louise Grapski, Georgetown; brothers, O.F. Langford, Hope, Ark, and E.W. Langford, San Antonio; and three grandchildren.

E. P. Legg, MD

Eugene P. Legg, MD, a Dallas orthopedic surgeon, died Aug 26, 1977. He was 67.
Dr Legg had been a resident of Dallas since

Dr Maddox

1945. A native of Abernathy, Tex, he was graduated from The University of Texas Medical Branch at Galveston. His internship was at Parkland Memorial Hospital in Dallas; his residencies were at Parkland Memorial Hospital, New Jersey Orthopedic Hospital, and Scottish Rite Hospital for Crippled Children in Dallas. He served in the Medical Corps in World War II.
Dr Legg was a member of the American Academy of Orthopedic Surgeons, American College of Surgeons, Southwestern Surgical Association, American Medical Association, Dallas County Medical Society, and Dallas Southern Clinical Society.
Surviving Dr Legg are his wife, Mary Emery Legg, Dallas; daughter, Mary Jean Hilton, Greenville, Tex; sons, Robert Manning Legg, Jacksonville, Tex, Dr Walter Eugene Legg, Lewisville, Tex, and James Daniel Legg, Dallas, and ten grandchildren.

G.A. Lively, MD

Gerald Andrew Lively, 49, of Big Spring, Tex, died April 12, 1977.
Dr Lively, a native of Muskogee, Okla, had practiced in Whitesboro, Post, and Abilene, Tex, before moving to Big Spring in 1974. He was on the staff of Big Spring State Hospital.
He received his BS degree from Northeastern State College, Tahlequah, Okla, in 1949, and his MD degree from the University of Oklahoma School of Medicine, Oklahoma City, in 1953. His internship was at St Joseph Hospital, Fort Worth.
Dr Lively served in the US Navy in the South Pacific from 1944 to 1946. He was a member of Permian Basin (Howard-Martin-Glasscock) County Medical Society and the American Medical Association.
Surviving Dr Lively are his wife, Frances Huggins Lively, Big Spring; son, Gerald A. Lively, Jr, Sherman, Tex; daughter, Mrs Larry Miller, Sherman; parents, Mr and Mrs A.D. Lively, Muskogee, Okla, and four grandchildren.

W. G. Maddox, Sr, MD

William Gordon Maddox, Sr, Dallas, died Sept 13, 1977, at the age of 80.
The retired physician had practiced for more than 50 years in Dallas, Fort Worth, and Denton. Dr Maddox maintained a private practice in Dallas from 1948 to 1962, and was resident physician at Southwestern Baptist Theological Seminary in Fort Worth until his retirement in 1976.
A native of Claryville, Ky, Dr Maddox was graduated from The University of Texas in 1921. He received his MD from Baylor College of Medicine in 1928. His internship and residency were at Baylor Hospital in Dallas.
Dr Maddox was a member of Tarrant County Medical Society.
Surviving are his wife, Ruth Mitchell Maddox, Dallas; sons, Dr William G. Maddox, Jr, Dallas, and Dr D. L. Maddox, Edmond, Okla; daughter, Mrs Sid (Dottie) Holliday, Richardson; sister, Mrs B. A. Boyers, St Petersburg, Fla; and nine grandchildren.

D.N. Matheson, MD

Daniel Nicholas Matheson, MD, 89, a Fort Worth physician for more than 50 years, died May 21, 1977.
Dr Matheson, a native of Longtown, SC, retired in 1973. He received his medical education at Emory University, Atlanta, and served his internship at Grady Memorial Hospital, also in Atlanta. Following service with the US Army Medical Corps in Tours, France, during World War I, Dr Matheson moved to Fort Worth in 1919.
He was an honorary member of Texas Medical Association, and a member of the American Medical Association.
Surviving Dr Matheson are his wife, Ruth Matheson; and sons, Donald N. Matheson, MD, and Benjamin Lee Matheson, all of Fort Worth; sisters, Mrs May Croxton, Kershaw, SC; Mrs Kathleen Smith, Trenton, NJ, and Laura Matheson, Columbia, SC; four grandchildren, and three great-grandchildren.

O.T. Nelson II, MD

Oscar Tolman Nelson II, MD, died in Dallas, March 2, 1977.
Dr Nelson, 56, had practiced in Dallas

since 1953, and was associated with the East Dallas Clinic. He retired in 1975.
The internist was born in Montgomery, Ala. He received his BS degree from the University of Alabama in 1949, and his MD from the Medical College of Alabama in 1953. His internship was at the Dallas Veterans Administration Hospital.
Dr Nelson was a member of the Dallas County Medical Society, American Medical Association, and Dallas Southern Clinical Society.
Surviving are Dr Nelson's wife, Rubye Turner Nelson; sons, Terry Craig Nelson and Jonathan Tolman Nelson; and daughter, Catheryn Marie Nelson.

Enrique Novoa, MD

Enrique Novoa, MD, a San Antonio family physician, died Aug 26, 1977. He was 74 years of age.
Dr Novoa was a native of Mexico City. He received his medical education in Mexico City and remained there for his internship and residency.
He was a member of the Bexar County Medical Society, and Southern Medical Association. He was a charter member of the American Academy of Family Physicians.
Survivors include his wife, Mrs Pauline Morgan Novoa, San Antonio; daughters, Elizabeth Novoa, Mexico City; and Carmen Novoa de Pinson and Ana Maria Novoa de Berry, San Antonio; sisters, Dolores Novoa de Bruce, San Antonio, and Margarita Novoa de Kelly, Mexico City; brother, Carlos Novoa Roumagnac, Mexico City; nine grandchildren; and three great-grandchildren.

E.L. Rippy, MD

Edwin Luther Rippy, MD, an honorary member of Texas Medical Association, died Feb 6, 1977, in Dallas.
Dr Rippy, a clinical associate professor of internal medicine at Southwestern Medical School, was actively involved in public education. He served as president of the Board of Education of the Dallas Independent School District from 1953 to 1960, was chairman of the Texas Conference on Education in 1955 and of the state delegation to the White House Conference on Education, and a member of the Texas Board of Education from 1966 to 1972.
Dr Rippy was born in 1908 in Sulphur Springs, Tex, and was raised in Dallas. He received his BS degree from Southern Methodist University in 1927, and his MD from Baylor College of Medicine in 1931.
He completed his internship and residency in internal medicine at University Hospital, Ann Arbor, Mich. Dr Rippy returned to Dallas in 1933 and practiced there until his retirement in 1976.
The physician was a past vice-president of the Dallas County Medical Society. He also was a founder and the first president of the Dallas Diabetes Association, and a member of the board of directors of the American Diabetes Association.
He was past president of the Dallas Southern Clinical Society, and a member of the American Medical Association, Southern Medical Association, Dallas Internists Club, Dallas Academy of Internal Medicine, Texas Internists Society, and Texas Academy of Internal Medicine, and a fellow of the American College of Physicians.
Surviving Dr Rippy are his wife, Helen Phillips Rippy; son, Robert E. Rippy, and granddaughter, all of Dallas.

Dr Novoa

R.E. Rousseau, MD

Robert Earl Rousseau, MD, an associate professor of radiology at The University of Texas Health Science Center at San Antonio, died Jan 31, 1977. He was 50.
Dr Rousseau had been with the Health Science Center since July 1975. He was chief of the Diagnostic Radiology Division, Bexar County Hospital, and co-director of the hospital's soft tissue laboratory. He also held an appointment in the diagnosis and roentgenology department of the dental school.
The physician was born in Three Forks, Mont, and was a graduate of Tufts University, Medford, Mass, (1948) and Columbia University College of Physicians and Surgeons, New York (1952).
Dr Rousseau's professional memberships included the American College of Radiology, Radiologic Society of North America,

Dr Thoma

Bexar County Medical Society, and American Medical Association.
Surviving Dr Rousseau are his wife, Ruth White Rousseau, San Antonio; daughters, Lani Delyon and Michele Mewbery, both of Santa Cruz, Calif; son, Mark Rousseau, Davis, Calif; and parents, Dr and Mrs Earl Rousseau, San Antonio.

F.P. Schuster, Sr, MD

Franklin Phillip Schuster, Sr, MD, 82, died April 9, 1977, in El Paso.
Dr Schuster, who had practiced medicine more than 50 years, retired in 1972. He was a past president of the El Paso County Medical Society, a founder of Providence Memorial Hospital, and an honorary member of Texas Medical Association.
Born in El Paso in 1895, Dr Schuster moved to Chicago in 1912 to attend the University of Chicago. After receiving his BS degree there, he entered Rush Medical College, also in Chicago. He completed his MD in 1918. He later studied at the University of Berlin and the University of Vienna.
Dr Schuster was a member of the American Medical Association; the National Board of Medical Examiners; the American Laryngological, Rhinological and Otolaryngological Society; and the American Academy of Ophthalmology and Otolaryngology, and a fellow of the American College of Surgeons.
Surviving the physician are his wife, Hallie Morton Schuster; daughter, Mrs Dan Harden; son, Franklin P. Schuster, Jr, MD; sister, Mrs Margaret Schuster Meyer, all of El Paso, and four grandsons.

M.C. Silverthorne, MD

Mervin Clark Silverthorne, MD, a Temple internist, died Jan 30, 1977. Cause of death was a heart attack.
Dr Silverthorne, 55, was active in Temple music and theatrical groups, including the Temple Civic Theatre and the Temple Civic Chorus. He had been on the staff of the Department of Internal Medicine at Scott and White Hospital since 1974.
A native of Fulton, Kan, Dr Silverthorne was a graduate of Duke University and the State University of New York School of Medicine. He practiced in McKinney and Denton before moving to Temple in 1967.
He was a member of the Bell County Medical Society, Texas Academy of Internal Medicine, Central Texas Research Society, and American Medical Association, and a fellow of the American College of Physicians.
Survivovrs include Dr Silverthorne's wife, Elizabeth MacDonald Silverthorne, Temple; daughter, Carol Silverthorne, College Station; and son, Steve Silverthorne, Galveston.

E. W. Thoma, MD

Earl William Thoma, MD, La Porte, died Sept 3, 1977. He was 85 years of age.
Dr Thoma, a retired surgeon, had lived in the Houston area since 1920. He was a member of the Memorial Hospital staff for 50 years.
Dr Thoma was a native of Buffalo, NY. He was graduated from the University of Pennsylvania in 1913. Four years later he received his MD from the University of Buffalo Medical School. His internship was at Buffalo General Hospital, and his residency was at Memorial Hospital in Houston.
Dr Thoma's professional memberships included Harris County Medical Society, 50 Year Club American Medical Association, and the International College of Surgeons 50 Year Club.
Surviving Dr Thoma are his wife, Hazel Williford Thoma, La Porte; sister, Mrs Roswell F. Thoma, Buffalo, NY; and three nieces.

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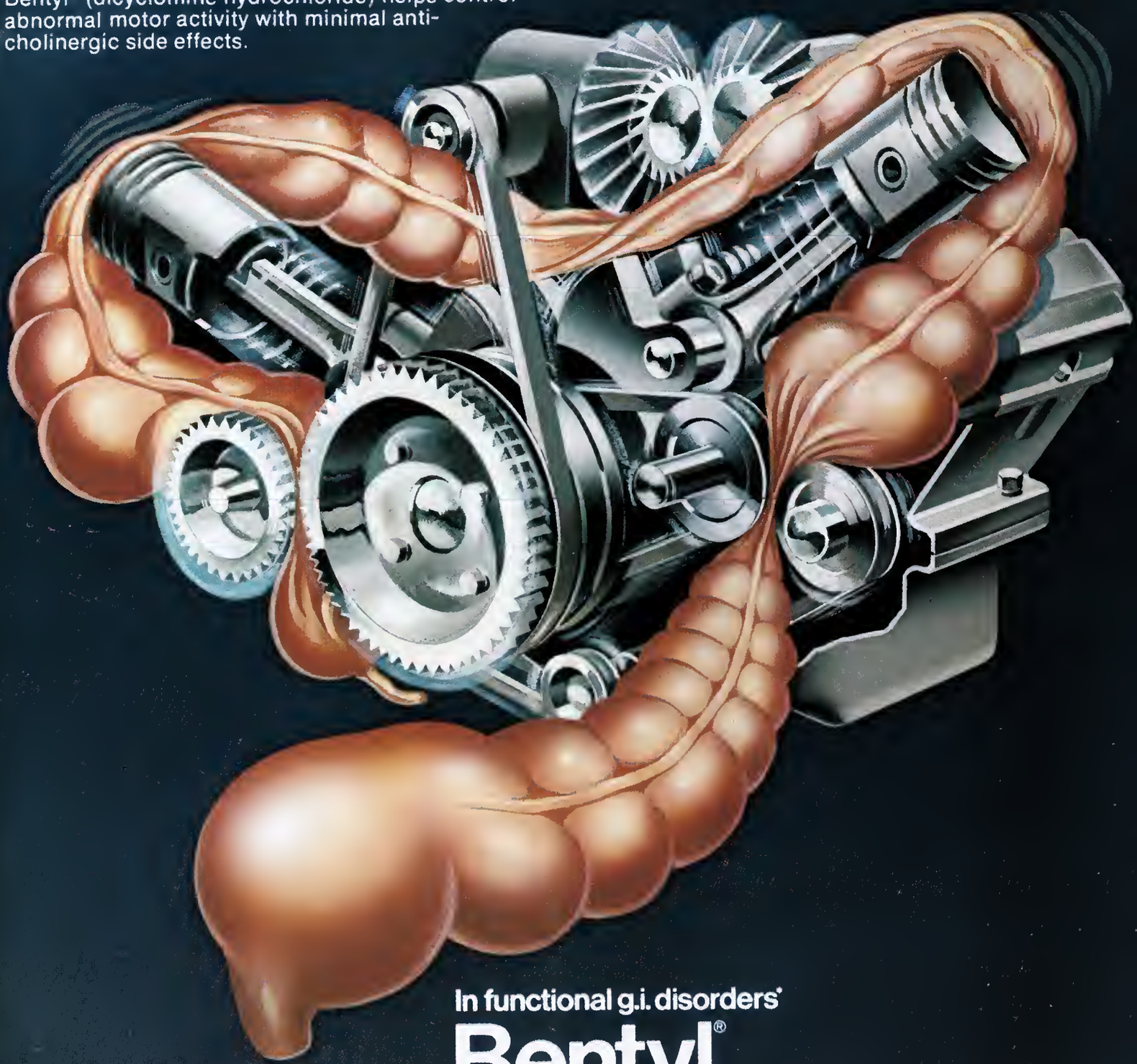
Abnormal motor function

Abnormal motor function is a frequent cause of the spasm, pain, distention and cramps that characterize a wide range of g.i. complaints. "It has been estimated that about three quarters of patients seeking medical care because of gastrointestinal complaints have functional derangements. Certainly these are more commonly related to abnormal motor activity than to anything else."[1]

Bentyl® (dicyclomine hydrochloride) helps control abnormal motor activity with minimal anti-cholinergic side effects.



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helps control abnormal motor activity.

*This drug has been classified "probably" effective in treating certain functional g.i. disorders. See brief summary.

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Ampoules, equivalent to 500 mg., 1 Gm., and 10 Gm. of cefazolin

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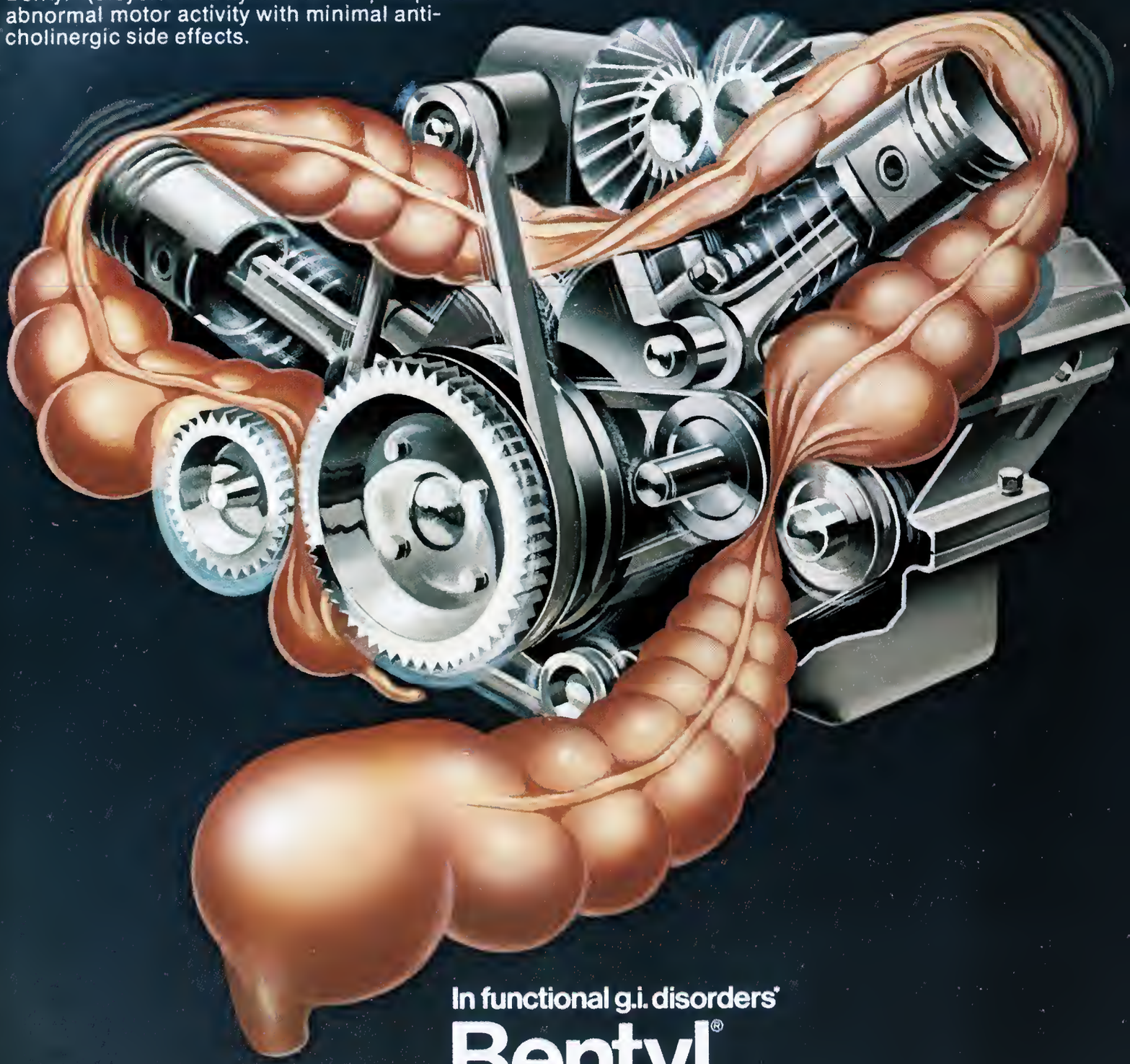

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*This drug has been classified "probably" effective in treating certain functional g.i. disorders. See brief summary.

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BRIEF SUMMARY

ACTION: Bentyl relieves smooth muscle spasm of the gastrointestinal tract

INDICATIONS: For use as adjunctive therapy in the treatment of peptic ulcer IT SHOULD BE NOTED AT THIS POINT IN TIME THAT THERE IS A LACK OF CONCURRENCE AS TO THE VALUE OF ANTICHOLINERGICS/ANTISPASMODICS IN THE TREATMENT OF GASTRIC ULCER IT HAS NOT BEEN SHOWN CONCLUSIVELY WHETHER ANTICHOLINERGIC/ANTISPASMODIC DRUGS AID IN THE HEALING OF A PEPTIC ULCER, DECREASE THE RATE OF RECURRENCES, OR PREVENT COMPLICATION

Based on a review of this drug by the National Academy of Sciences – National Research Council and/or other information, FDA has classified the indications as "probably" effective.

May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders), and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon)

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy), obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis), paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis, toxic megacolon complicating ulcerative colitis, myasthenia gravis.

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating).

Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful.

Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug.

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with:

Autonomic neuropathy.

Hepatic or renal disease.

Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.

Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.

Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis).

Do not rely on the use of the drug in the presence of complication of biliary tract disease.

Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate.

With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these.

Adverse reactions may include xerostomia, urinary hesitancy and retention; blurred vision and tachycardia, palpitations, mydriasis, cycloplegia, increased ocular tension, loss of taste, headache, nervousness, drowsiness, weakness, dizziness, insomnia, nausea, vomiting, impotence, suppression of lactation, constipation, bloated feeling, severe allergic reaction or drug idiosyncrasies including anaphylaxis, urticaria and other dermal manifestations, some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating.

DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs.

Usual Dosage: Bentyl 10 mg. capsule and syrup:
Adults: 1 or 2 capsules or teaspoonfuls syrup three or four times daily
Children: 1 capsule or teaspoonful syrup three or four times daily
Infants: ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.)
Bentyl 20 mg.: Adults: 1 tablet three or four times daily

Bentyl Injection: Adults: 20 mg. (2 ml.) every four to six hours intramuscularly only
NOT FOR INTRAVENOUS USE.

Reference: 1. Lorber, S.H.: G.I. Dialogue #1
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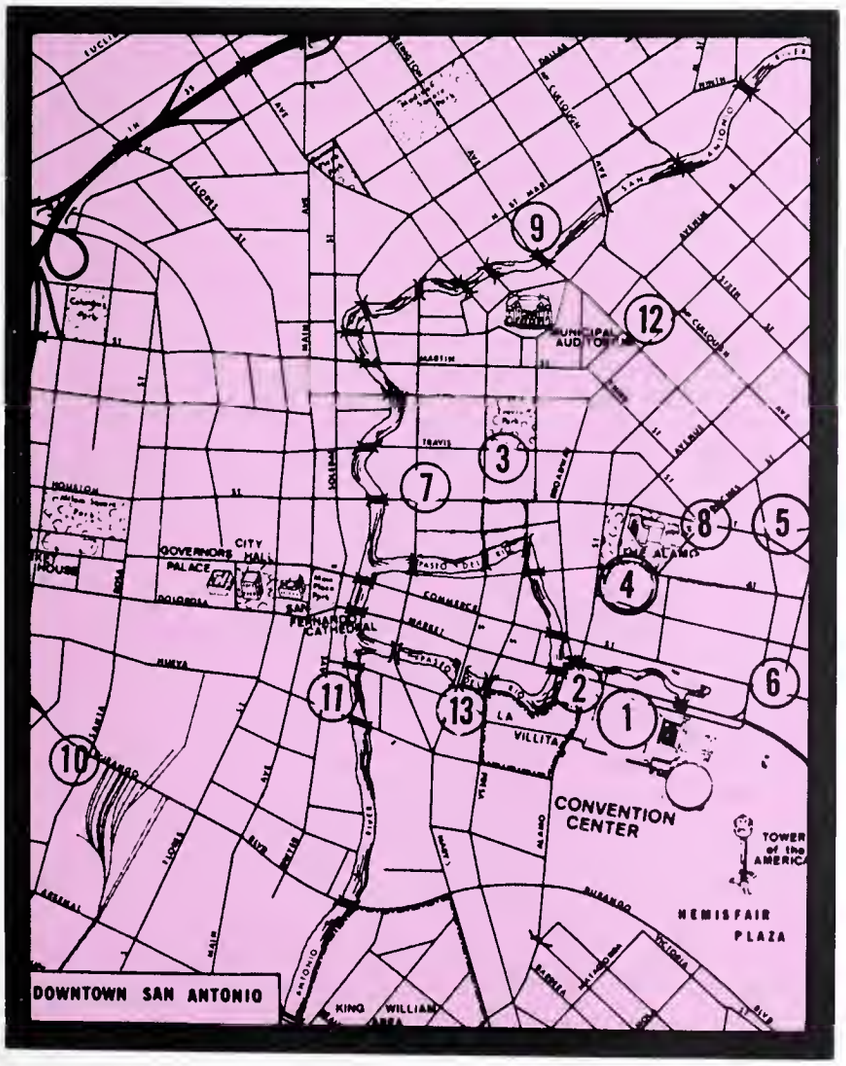

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GENERAL MEETING LUNCHEONS

Friday, May 12, 12:15 p.m., San Antonio Convention Center
Luncheon speaker will be Edward Teller, Ph.D., Nuclear Physicist, Lawrence Livermore Laboratories, Livermore, California.

Saturday, May 13, 12:15 p.m., San Antonio Convention Center
Speaker pending.

DELEGATES' LUNCHEON

Thursday, May 11, 1 p.m., San Antonio Convention Center
Luncheon speaker will be John H. Budd, M.D., President, American Medical Association, Cleveland, Ohio

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- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

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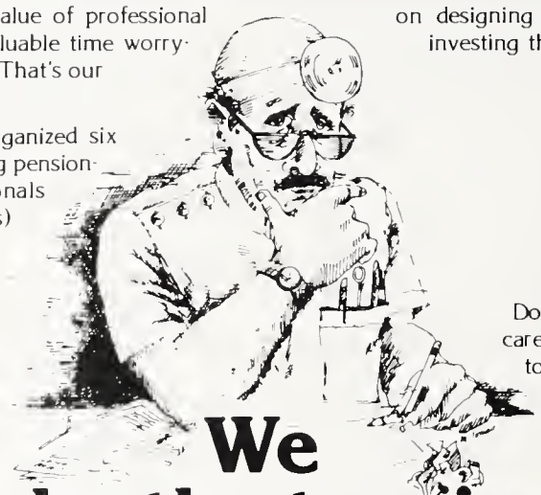

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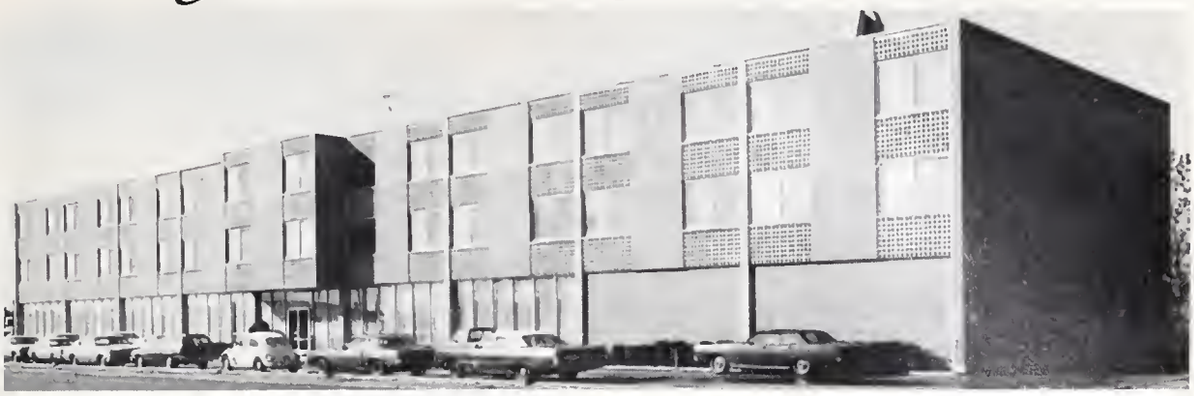

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DALLAS EMERGENCY STAFF POSITION—Dallas, Texas. Teaching institution with 20,000 patients per year. Variety of trauma and acute medicine. Congenial atmosphere in recently remodeled 500-bed hospital. Available July 1, 1978. $45,000 minimum guarantee/fee-for-service with great growth potential. Contact Texas Emergency Room Services, P.A., 3603 Hall Street, Suite 102, Dallas, Texas 75219, 214-522-5481 or 1-800-325-3982, ext. 220, toll free.

TEXAS EMERGENCY DEPARTMENT DIRECTORS111P—Small town atmosphere within 30 minutes of Dallas. 8,000 patient visits per year. Coordinate clinical and administrative services of emergency department. Participate in hospital policy-making committees. $46,000-$59,000 per year. Contact Texas Emergency Room Services, P.A., 3603 Hall Street, Suite 102, Dallas, Texas 75219, 214-522-5481 or toll free 1-800-325-3982, ext. 220.

INTERNIST—Pine hills of East Texas. Thriving city of 65,000. Extraordinary cultural and recreational activities. Medical center of North East Texas. Ten man group—four GP/FP, three IM, three surgeons. Please contact Robert Felix, Administrator, Medical & Surgical Clinic, P.O. Box 3026, Tyler, Texas 75701; phone 214-593-1721.

WANTED—GP FOR BUSY PRACTICE in Longview, Texas. 60,000 population. Salary according to experience. No night calls or deliveries; work hours strictly from 8 a.m. to 5 p.m. For information call Dr. Elafifi, 214-758-4416.

EMERGENCY DEPARTMENT DIRECTOR WANTED—Longview, Texas, population 60,000. Two hour drive east of Dallas. Progressive community with beautiful wooded geography and nearby lakes. Need career ACEP MD with ER and administrative experience. Malpractice insurance supplied. Fee for service compensation $72,000 for 20 shifts/month. EHSA, 3600 Gaston, Se. 503, Dallas, Texas 75246; 214-823-6850.

GENERAL/FAMILY PHYSICIAN(S) WANTED: Unlimited opportunity for energetic, free-enterprise oriented self-starter. (Excellent for one desiring to start group practice.) Dallas suburb, country living, lake atmosphere, affluent area, excellent schools. New professional area planned. Call 214-722-3685 after 7 p.m. for details. Dr. Frank Miller.

ASSOCIATE MEDICAL DIRECTOR: Large life insurance company; southwest area. Internist or generalist preferred; some experience in interpretation of EKG's and chest x-rays. Good fringe benefits. Reply resume to Medical Director, P.O. Box 2075, Houston, Texas. EOE employer.

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PHYSICIANS WANTED—Family practice, OB, GYN, pediatrics. Contact Paul Bennett, Administrator, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647. Telephone 214-845-2281.

STAFF PHYSICIAN NEEDED FOR STATE HOSPITAL. Progressive 750 resident state institution. Eligibility for Texas license required. Salary is negotiable, 40 hour work week, paid vacation, sick leave, holidays, good retirement plan and free group insurance. Kerrville is known as a retirement center. Prefer mature physician over age 50. Please contact Luther W. Ross, M.D., Superintendent, Kerrville State Hospital, P.O. Box 1468, Kerrville, Texas 78028 or phone 512-896-2211. We are an equal opportunity employer.

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Situations Wanted

INTERNIST/ONCOLOGIST. 33, ABIM eligible. Seek private practice (solo, group, partnership, hospital based) or full time position as primary care physician (general internist) with or without oncologic referrals. Any area. Prefer some financial guarantee to start with but not necessarily. Available 7/78, finishing university training. Licensed in TX/NJ/DC. Please reply to Ad-758, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

SEEKING TEXAS LOCATION. P.J. Reddy (male), 40 years old. Psychiatry. M.D., D.P.M., F.R.C.P.(c), A.B.P.N., 10 years. Widely experienced. Ecelectic. Looking for position at university level or in practice. Fully licensed in Texas and few others. P.V. Reddy (female), 35 years old. OB-GYN. M.D., M.R.C.O.G. Passed Part I AB OB-Gyn. In practice 4 years. Looking for position in solo or group. Fully licensed in Texas. Contact Dr. P. J. Reddy, 343 Greenwood Drive, Petersburg, Virginia 23803; phone 804-861-9311 home; or 804-861-7331 office.

FAMILY PRACTITIONER with obstetrics and pediatric experience wishes to purchase established practice or clinic in Texas. Please reply to Ad-762, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

CANADIAN UROLOGIST 48. Six years postgraduate training (5 Toronto and 1 Duke U.) Fifteen years consulting practice urology. University appointment spinal cord service. Prefers associate, group, or institutional practice; city of 100,000 or more. C.V. on request. Texas license pending. Dr. W. H. McCrae, 672 Brant Street, Burlington, Ontario, Canada L7R 2H3; 416-632-2230.

CANADIAN TRAINED ANESTHESIOLOGIST, 11 years experience, wishes to do one month locum with the intention of permanent placement later. Please reply to Ad-766, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

Exceptionally well trained and experienced GP interested in move to Texas. Excellent references. Availability flexible, but would like to give minimum of three months notice to current position. Sunbelt Physician Placement Service, 5500 N. Braeswood, No. 177, Houston, Texas 77096. 713 729-6068.

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39 year old, FMG, cardiology board eligible, trained in invasive (Judkins') and non-invasive, wishes to associate or join a group in city or suburban locations. Willing to join internists. Please reply to Ad-770, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

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INTERNIST—HEMATOLOGIST—ABIM, 30, seeks group, hospital-based position in general internal medicine and/or hematology. Prefer to be close to Dallas, Austin, Houston, San Antonio areas. Available 7/78. Please reply to Ad-772, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

SEEKING LOCATION—29 year old, married Canadian citizen and graduate in general practice for two years wishes to relocate in Houston or within 70 miles surrounding area. Will consider solo, group practice or emergency work. Available immediately. Please reply to Ad-777, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

SEEKING LOCATION—27 year old, married. Canadian citizen and graduate (1975) wishes to relocate in Houston or within 70 miles surrounding area. Seeking salaried position in group practice, clinics or emergency work. Available immediately. Please reply to Ad-778, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PATHOLOGIST: 47 year old, board certified, AP, CP and OB-GYN. Experienced in clinical and laboratory medicine as well as laboratory management. Presently director of very busy 3-man lab with over 300,000 tests per year. Married, three children. Born and raised in southwest. Desire to return. Seeks laboratory directorship in progressive community hospital. Reply to Ad-775, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST-GASTROENTEROLOGIST: 32, ABIM, G-I, board eligible. Trained extensively in a major university center. Fully experienced in endoscopic and other G-I procedures seeks solo, group or hospital based practice. Available in March 78. Please reply to Ad-774, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL INTERNIST, 30, FLEX, New York and Texas licensed, ECFMG certified. Board eligible ABIM, interest in cardiology: EKG interpretation, Holter, stress testing, ICU/CCU; some GP, seeks opportunity to practice solo, partnership or small group, preferably medium size city or suburbs. Available immediately. Please reply to Ad-773, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PEDIATRICIAN, 32 years old, board eligible, Texas license, desires position in a hospital or clinic or with a group practice in Houston, Texas and vicinity. Please reply to Ad-780, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST—33, board certified, experienced in CCU and graphics including echo. Seeks solo or group practice in internal medicine. Full time position also considered Dallas, Houston vicinity preferred. Available March 1978. Please reply to Ad-779, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL SURGEON, 30, completed residency from medical college program. Qualified Part I boards. Seeks solo or partnership practice opportunity in Texas. Available immediately. Please reply to Ad-782, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

SEEKING LOCATION—A 28 year old, married, Canadian graduate wishes to relocate in Texas. Certificant of Family Physicians of Canada. Practice within 100 miles of Houston preferred. Will consider emergency work. Please reply to Ad-783, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

OB-GYN and SURGEON: Wife and husband, both board eligible. Additional training in head and neck surgery with good emergency room experience. Both seeking association, partnership, group practice, solo or full time. Available July 78. Both have FLEX. All locations considered. Please reply to Ad-784, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701; or call 212-254-1329 (home); 212-228-8000, ext. 276 (bus.).

GP WITH 20 years private practice in Ontario, seeking interview and establishing in group, solo or hospital. ECFMG, 1977. Texas license from 1978. Speaking English, also Italian, German, Yugoslavian, Russian, native Bulgarian and some Spanish. Three children, university, secondary, and primary schools. Healthy family. Please reply to Ad-786, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

MULTIDISCIPLINARY skills and leadership seeking opportunity in health services development and management, preventive medicine and health maintenance, internal medicine, environmental health, community development and design, energy conservation and alternative systems—or combination thereof. Location within 100 miles of Houston; limited traveling acceptable. M. Lawrence Heideman, Jr., M.D., 9109 Fondren, #216, Houston, Texas 77074.

CLINICAL CARDIOLOGIST—33 years, diplomate, ABIM, subspecialty of cardiovascular disease. Foreign medical graduate. Trained in major teaching hospitals. Expertise in echo, hemodynamics and research. Seeks group or solo practice. Teaching opportunities welcome. Available immediately. Please reply to Ad-787, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

MALE, FMG, licensed in Texas, completing formal training in internal medicine and gastroenterology in June 1978. Seeking associate, partnership or solo practice. Please reply to Ad-785, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD ELIGIBLE GENERAL SURGEON, 30, good experience in trauma—vascular and general surgery. Seeking solo, association, partnership, group or clinic practice. Preferably in medium to large size university city in Texas. Available July 1978. Please reply to Ad-788, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

For Sale or For Rent

OFFICE SPACE IN DALLAS — Office suites still available one block from Baylor Hospital in new Medical Center Building, 3801 Gaston Avenue, Dallas, Texas. Pharmacy, laboratory in building. Generous allowance for office improvements. Planning and layout available without cost. Contact Joe Mistrot, (214) 828-2761, or write P.O. Box 18237, Dallas, Texas 75218.

AUSTIN—NEW PROFESSIONAL PARK. Int. Med., GP, FP, Peds, OB/GYN, ENT, Radiologist to associate in group setting for solo practice. University town, new hospital. Cannon Professional Park, 1110 William Cannon Drive, Austin, Texas 78745. Telephone 512-451-8484 or 512-444-1954.

CORPUS CHRISTI, TEXAS: FOR LEASE 1500 sq. ft. clinic space. 60% furnished. Prefer FP or compatible specialist. Willing to provide some financial backing to help right physician. Please submit curriculum vitae and desired financial arrangements: Eugene L. Brown, Jr., M.D., 5705 Gollihar, Corpus Christi, Texas 78412; 512 991-8211.

MEDICAL BUILDING in San Antonio for sale or lease. 2000 sq. ft. medical clinic in 7 year old building at 1827 Bandera Road. Suitable for all primary care physicians and possibly for two physicians at the same time. Leasing agreement at 30¢ per sq. ft., to include utilities and janitorial service. For information call Irwin Kurtz, M.D., 512 696-4233 or Pete Cantu, Realtor, 512 736-4296 or 512 695-8466.

FOR SALE: COMPLETE MEDICAL CLINIC AND PRACTICE of deceased family physician. Located in Preston Center, Dallas, Texas. 1400+ sq. ft. Picker x-ray, complete lab equipment with ECG. Physical therapy equipment, two fully equipped examining rooms, front office file, photocopier, typewriters, adding machines, etc. Personnel available if desired. Call Suttle Clinic, 214-363-5521.

PHYSICIANS' OFFICE SUITES available for lease at Medical Park Tower, the most prestigious, largest, professional medical office building in Austin. Conveniently located immediately adjacent to Seton Medical Center and near other medical facilities within the city. Contact Alan Guerin, Vantage Management Company, 512-454-3646, 1301 West 38th Street, Suite 206, Austin, Texas 78705.

CLINIC SPACE AVAILABLE for a physician in family practice, in a modern medical clinic. Excellent conditions. For information write Medical Clinic, P.O. Box 28253, San Antonio, Texas 78228.

VALLEY IRRIGATED AND DRYLAND, SOUTHWEST OKLAHOMA: Ranch for sale by owner. 640 acres, valley irrigated land, 15 miles southwest of Lawton, Oklahoma. Five graineries, large shed, feeding pen, six room modern house. $650,000. 320 acres dryland, four ponds, one full of bass, two full of channel cat. Two inch steel pipe stock pens and shed, two outbuildings, two bedroom modern house, central air and heat, one extra bedroom in small house. Fourteen miles east and three north of Frederick, Oklahoma or 20 miles southwest of Lawton, Oklahoma or 40 miles northwest of Wichita Falls, Texas. Call 405-235-6461 or 525-2008.

DOCTOR'S OFFICE TO SUBLET. Approximately 1500 sq. ft. Furnished or unfurnished. In Southwest Medical Center, 6565 DeMoss, Houston. Near Sharpstown Hospital and new Memorial Hospital. Also furnishings and equipment for sale. Contact Dr. Harvey Koch, 713-495-5918.

DALLAS ENT DOCTOR RELOCATING for semi-retirement. Office in 40 doctor-owned professional building, Baylor area for lease. Turn over practice to right man. Interest in joint venture available. Good location for any specialty. Three open staff hospitals in one block area. Please reply to Ad-781, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FOR SALE OR RENT: One Brattle Fetal Monitor, will give a demonstration if desired. Call Paul L. Stuck, M.D., 817-562-6505.

PRACTICE FOR SALE: Internal medicine practice located in beautiful East Texas. Gross of $170,000+ with 60% net. Price $75,000. Professional Practice Services, P.O. Box 36817, Houston, Texas 77036; 713-771-5011.

LEASE OPPORTUNITY AVAILABLE for doctors office in Pearland. Fast growing community; South Houston suburb. New shopping center under construction. Room for one or two doctors. 1500-1800 sq. ft. now available. 3700 Block East Broadway. Contact Leon Koehn, P.O. Box 577, Pearland, Texas 77581; 713-485-2402.

OFFICE SPACE IN HOUSTON—between downtown and medical center. Due to MD retirement, well established medical offices in medical-dental building. Very desirable area. Ample parking. Photos sent on request. Doctors practice and equipment also available. Contact Bengy Sebesta 713-522-2121 or write 3304 Milam, Houston, Texas 77006.

FOR LEASE, HOUSTON—One story brick medical doctors clinic, near medical center. 4300 sq. ft. Built for pediatric clinic, adaptable to any medical group or other group. Contact Dr. E. O. Fitch, 1729 Sunset Blvd., Houston, Texas 77005; or call 713-526-6443 or 713-522-8916.

Miscellaneous

ABORTION ALTERNATIVES! Licensed maternity service offers residential and non-residential program with counseling and medical plan for the expectant mother who is planning adoption for her baby. Costs adjusted to ability to pay. MARYWOOD, 510 West 26th Street, Austin, Texas 78705. Phone 512-472-9251. (Formerly HOME OF THE HOLY INFANCY)

VACATION RENTAL—Beach villa in Manzanillo, Mexico. Private pool and maid service. Tennis and golf. For brochure and prices write Dixon Mahon, Box 949, Ozona, Texas 76943.

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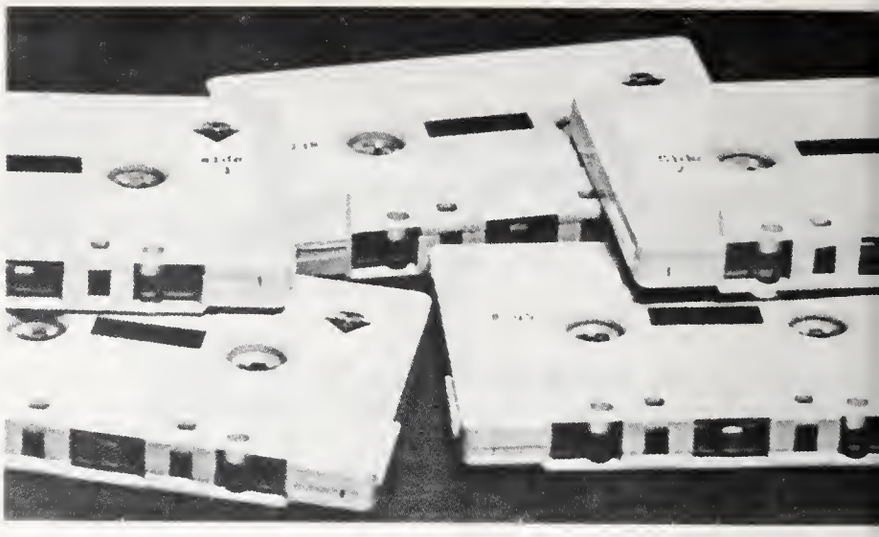

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Tape C: **Doctors and Health Care Costs,** a joint presentation by Dr. Charles Max Cole of Dallas, AMA Trustee, and Dr. James Peden of Dallas, chairman of TMA's Council on Medical Service and Insurance; **Medical Political Action in 1978** by Dr. Archie Johnson Jr., North Carolina Medical Political Action Committee.

Tape D: **National Health Insurance** panel featuring hospital, industrial, British, Canadian and medical education experts.

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Editorials

HOW MUCH DO OUR ORDERS COST?

The scene was a TMA council meeting toward the end of a seven-hour session. Everyone was tired and the January drizzle was turning to ice, but an important agenda item was unfinished:

What ideas can we contribute to the TMA's overall efforts to control medical service costs?

It was the major topic for the weekend, and ultimately five councils, three committees, and TMA's Executive Board adopted cost containment priorities for 1978.

Someone commented that medical education ought to include more about costs; conversationally, he asked the council's resident representative if he knew how much his hospital patients were charged for several tests and procedures.

Without hesitation, the resident cited every cost to the penny.

Quickly recovering from their astonishment, the council members wanted to know how, where, and when their young colleague's cost consciousness had been so keenly developed.

As a resident, he explained, his responsibilities included going over many patients' hospital bills, checking to see that every item charged was actually ordered for, and received by, the patient. If he found errors, he saw to it that they were corrected. In the process, he acquired a practical knowledge of costs and a sense of economy in planning for his patients.

All physicians need to know how their orders translate into money. They are, after all, not only the patient's advocate but also, to some extent, his purchasing agent.

Even though physicians cannot control all health care costs, we as leaders must set the example of delivering cost-effective medicine.

In order to do that, we all need to know the price of our wares—today's prices for today's procedures in today's economy.

How much do you know about your patient's costs? Are you willing to see?

Think about your last three patients and tot up itemized bills covering everything you did for them, or ordered or prescribed for them. Check your figures with your bookkeeper, the hospital billing clerk, pharmacist, the consultant you sent them to. How close was your estimate?

By the way, did you remember to send pertinent records to the consultant so that he wouldn't necessarily have to duplicate what you've already done?

The Texas Medical Association's number one priority for 1978 is cost containment, and the different ways in which TMA will pursue this goal are listed elsewhere in this issue (see page 83).

We are being given an opportunity to try to keep costs down voluntarily rather than by law. Hon. Dan Rostenkowski (D-Ill), chairman of the House Subcommittee on Ways and Means, has said that when his subcommittee considers the Hospital Cost Containment Act of 1977, he will ask for a proposal that would allow the health care industry to reduce the national rate of increase in hospital costs voluntarily by 2% in 1978 and an additional 2% in 1979. He feels that if the industry is able to do this, then no federal regulatory program should be put into effect.

We will be hearing and reading about cost-effective medical care a great deal in the coming months, and our daily decisions will affect the extent to which we are able to accomplish that objective.

John M. Smith, Jr, MD, President,
Texas Medical Association.

Apr78

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Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension*, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

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VOL 74 APRIL 1978

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On The Cover

Texas Medical Association's German May Fest, the entertainment highlight of the 111th Annual Session, features Pehl's Oompah Band and German food booths. Scheduled for May 11-14 in historic San Antonio, Annual Session also offers numerous opportunities to earn Category 1 credit toward the Physician's Recognition Award of the American Medical Association. The bulging continuing education program includes curbstone consultations, continental breakfast presentations, special committee symposia, scientific and technical exhibits, and the forum of original research. Read more about San Antonio and Annual Session on page 108.

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Indications: Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

Important Note: When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

Contraindications: A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

Warning: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

Precautions: The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

Adverse Reactions: Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

Usual Dosage: Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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- 10 times more active against strep than staph.
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Please see brief summary for prescribing information.

News in brief

TMA Annual Session

More than 500 program participants will present Texas Medical Association's Annual Session in San Antonio May 11-14. Special features include programs on aging, sports medicine, cardiovascular diseases, emergency medical services, maternal and child health, school health, developmental disability, and rheumatic disease. Other highlights include alumni functions, a German May Fest, the Physicians' and Spouses' Art Exhibition, and golf and tennis tournaments . . . 7

Cost containment

As debate in Washington continues over proposed medical care cost containment legislation, Texas physicians continue to work to contain medical care costs. The Texas Medical Association has sent communications to each county medical society and hospital chief of staff asking them to take an active role in the TMA cost containment program. The TMA Executive Board has endorsed the Texas Voluntary Cost Containment Panel plan to reduce health care expenditures . . . 8

Forum on Medical Issues

The Texas Medical Association has expanded its traditional speakers bureau and formed a new TMA Forum on Medical Issues. With the recruitment of 75 physicians and staff speakers, the Association can present programs on 45 separate medical topics within the broad areas of legislation, socioeconomics, education, ethics, hospital issues, legal aspects of medicine, community health programs, and the 1978 elections. County medical societies are encouraged to review topics and schedule one or more programs during 1978 . . . 10

PSRO

Proposed rules have been published in the March 3 *Federal Register* that would allow Texas to be designated as a single statewide professional standards review organization (PSRO). Since 1973, Texas health care providers, including the Texas Medical Association, the Texas Osteopathic Medical Association, and the Texas Hospital Association, have been working to have Texas designated as a single PSRO area . . . 12

News in detail

More than 500 will present TMA's Annual Session in May

More than 500 program participants will present Texas Medical Association's Annual Session in San Antonio May 11-14.

Approximately 350 TMA members will have an opportunity to present papers, and 57 prominent national medical leaders will be featured in the programs.

One hundred special essayists, including researchers, therapists, attorneys, and other professional representatives will participate.

Twenty-two scientific sections, nine TMA committees, and 32 specialty societies and related medical organizations will present programs.

The majority of the programs for the San Antonio meeting are devoted to an in-depth coverage of one area of the specialty and will qualify for Category 1 credit of the AMA Physician's Recognition Award. Approximately 250 Category 1 hours will be offered.

Special features include sessions on aging, sports medicine, cardiovascular diseases, emergency medical services, maternal and child health, school health, developmental disability, and rheumatic disease. Also presented will be ten AMA-TMA postgraduate courses, a medical seminar on rape, a program on hypertension, and a dialogue program on pertinent medical topics.

Meetings of the TMA House of Delegates are scheduled Thursday, Friday, and Saturday beginning at 8 am.

Other Annual Session highlights include alumni functions; a German May Fest for TMA members, spouses, and guests; the Physicians' and Spouses' Art Exhibition; and golf and tennis tournaments.

The Texas Medical Foundation will present a physician advisor seminar including presentations by four physicians experienced in utilization review. The session will include information on an overview of the Texas Admissions and Review Program, review criteria, the role of the physician advisor, and the role of the utilization review committee.

The Texas delegation to the AMA will hold an AMA open hearing from 3-4 pm May 11 in River Room II of the San Antonio Convention Center. John H. Budd, AMA president, will be present at the hearing. The hearing will enable any TMA physician, medical student or TMA Auxiliary member to ask questions about AMA policies and activities and to express attitudes on medical issues being considered by the AMA.

More information about TMA's Annual Session begins on page 108 of this issue.

Cost containment and 1978 priorities top TMA Executive Board March meeting

Texas Medical Association 1978 priorities and development of the Association's cost containment plans topped the agenda for the March 12 meeting of the TMA Executive Board in San Antonio.

Board members discussed TMA's cost containment activities including mailings to county medical societies and distribution of the brochure "Rx for Medical Care Costs."

The Board also approved referrals of the Association's 1978 priorities to TMA councils and committees.

The board received a report from the TMA Ad Hoc Committee on Self-Insurance Trust.

An update of Professional Standards Review Organization developments was presented to the Executive Board. (See story, p 12)

Board members also considered a recommendation from a special committee of specialty society representatives recommending representation in the TMA House of Delegates. The report was received for information and referred to the House of Delegates.

Texas physicians continue work to contain medical care costs

As debate in Washington continues over proposed medical care cost containment legislation, work by physicians continues in Texas to contain medical care costs.

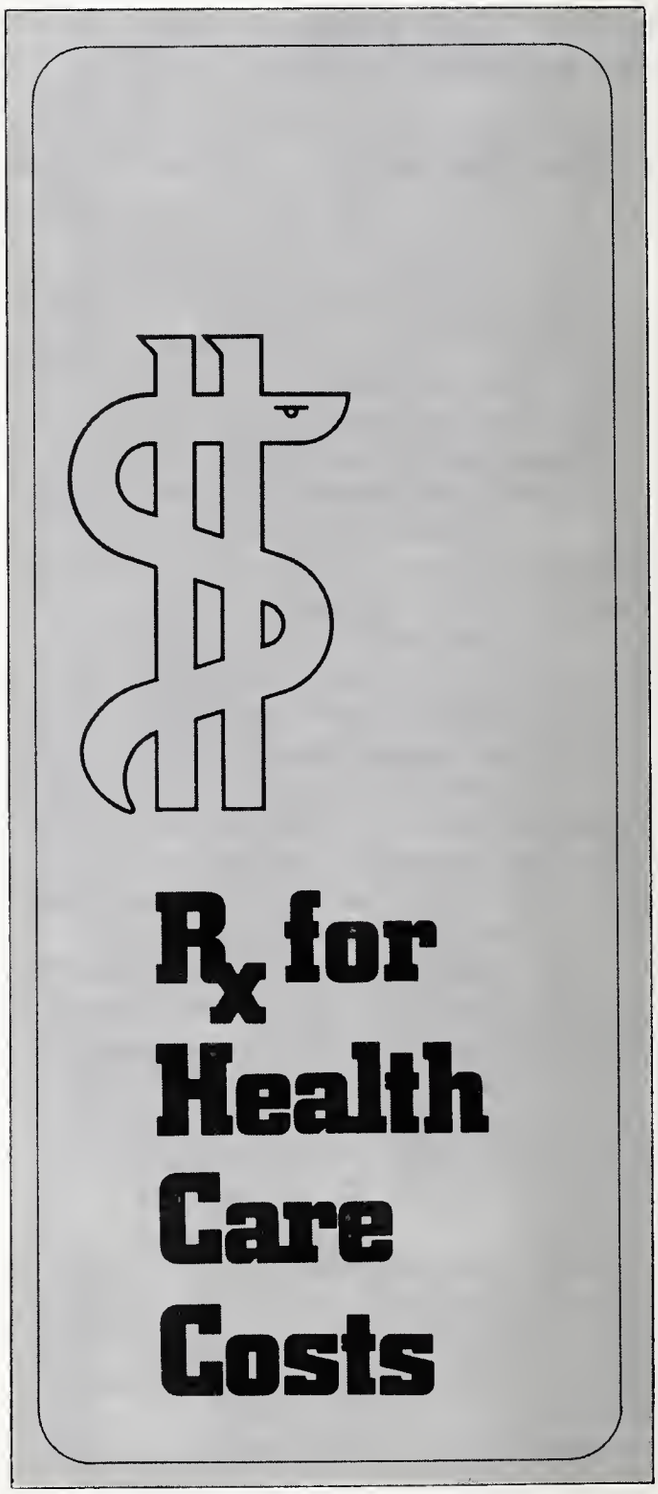
The Texas Medical Association has sent a communication to each county medical society asking them to take an active role in the TMA cost containment program by urging local newsletters to make physicians more sensitive to rising costs, establishing local voluntary cost containment panels to examine costs, encouraging Health Systems Agencies to stress programs in preventive medicine, making presentations to civic groups on medical care costs and the role of the patient in controlling costs, and distributing the pamphlet "Rx for Health Care Costs."

"Rx for Health Care Costs," an informational brochure for physicians, is available from the TMA Communication Department. The brochure suggests different ways of reducing medical care costs including learning hospital costs, teaching cost awareness, limiting diagnostic tests, reducing hospital utilization, and discouraging patient demands.

A communication has been sent to all Texas hospital chiefs of staffs urging them to evaluate hospital admissions by day of the week to determine if better scheduling can be achieved, request the hospital administration to make available to the medical staff information on the costs of frequently utilized services in the hospital, and to reaffirm the commitment of the medical staff to participate in the voluntary utilization review programs.

Other TMA activities include endorsement by the TMA Executive Board of the Texas Voluntary Cost Containment Panel plan to reduce health care expenditures. This plan has as its major goals a reduction of two percentage points in the rate of increase in hospital expenditures in each year 1978 and 1979; no net increase in the stock of hospital beds in the United States as of Dec 31, 1977; and a reduction in total capital investments by hospitals to 80% of the annual average capital investments during the three-year period of 1975 through 1977. Technical assistance in meeting the goals will be provided, if requested, to individual hospitals by the THA Statewide Hospital Productivity Center.

"The Buck Starts Here," a film by Blue Cross-Blue Shield directed to physicians, is also available for showing at county medical society or hospital medical staff meetings. For copies of the film, county medical societies should contact the TMA Communication Department, 1801 N Lamar Blvd, Austin 78701, and hospital staffs should contact Henry Denning, Blue Cross-Blue Shield of Texas (214) 741-8728. The film is available in 16 mm and ¾ inch video tape cassette.



The Texas Medical Association has developed the brochure, "Rx for Health Care Costs," for distribution to Texas physicians.

Tension reliever

Take two policies, or three, or more — whatever you need to relieve your tension about the "what-ifs" of life.

The group insurance package of the Texas Medical Association gives you the flexibility to choose the coverage you need — from term life insurance and disability income coverage to overhead expense insurance, personal accident coverage, and major medical expense. And all are designed to meet the special needs of physicians.

To learn more about the TMA tension relief plan, send the coupon below to:

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TMA develops new Forum on Medical Issues

The Texas Medical Association has expanded its traditional speakers bureau and formed a new TMA Forum on Medical Issues.

With the recruitment of 75 physicians and staff speakers, the Association can present programs on 45 separate medical topics within the broad areas of legislation, socioeconomics, education, ethics, hospital issues, legal aspects of medicine, community health programs, and the 1978 elections.

County medical societies are encouraged to review topics and schedule one or more programs during 1978. County medical societies are also asked to schedule Association speakers before lay and civic groups on the day the speakers visit the county medical societies.

The programs are presented at no charge. TMA is underwriting the travel costs of its speakers.

County medical societies are urged to make program requests at least two weeks before the meeting date. However, do not hesitate to write or call on short notice.

For more information contact Bob Mickey, Texas Medical Association, 1801 N Lamar Blvd, Austin, TX 78701.

Feasibility study continues on TMA self-insurance trust

Work is continuing by the TMA Ad Hoc Committee on Self-Insurance Trust and American Health Systems, Inc, San Francisco, in investigating the possibility of creating a TMA sponsored self-insurance trust.

The study is to provide information for TMA members to determine if the organization should create an entity which can provide professional liability protection to TMA members who voluntarily apply and are accepted for coverage.

The TMA House of Delegates and Board of Trustees have approved the feasibility planning study which will provide information to the Association on several technical and actuarial questions related to establishment of a self-insurance trust. The results of the study will be presented to the TMA House of Delegates for consideration.

Under sections of HB 1048, passed by the 1977 Texas Legislature, authority is extended to qualifying organizations, including TMA, to operate a self-insurance trust not under day to day regulation of the Texas State Board of Insurance except as to be able to demonstrate that it can meet financial obligations.

The trust would be directed and managed by the medical profession to ensure that physicians' interests are represented.

American Health Systems, Inc was selected from several firms to provide support in the study to assess implications, considerations, and risks involved in creating a TMA sponsored entity.

There are numerous possible functions of a self-insurance trust. The trust could provide basic and/or excess insurance; provide insurance for the costs of defense only; act as an agent or broker and place coverage in the private market; buy or sell re-insurance; or contract with carriers on behalf of its participants.

The trust could also act as an agent, assist in renewal of current policies, review claims, or assist in legal defense.

The Ad Hoc Committee on Self-Insurance Trust will meet several times in April to consider progress reports.

AMA will sponsor rural health conference in April

The American Medical Association's 31st National Conference on Rural Health, to be held April 5-7 in Denver, will pay special attention to the handling of such clinical problems and to their social, economic, and political context.

This year's conference will be the first to have continuing medical education classes, skill sessions, workshops, and model presentations directed specifically at rural providers of care.

One of the great clinical problems is that accidents strike a bigger proportion of farmers than city dwellers and are a leading cause of rural deaths. Accordingly, the classes will include complex wound closure, severe head trauma, occupational and environmental health hazards, and environmental toxicology. One of the skill sessions will be on emergency services.

Another challenge is that rural areas have relatively high rates of poverty and maternal death. The conference will spotlight such needs as home care and women's care.

More so than in the past, the rural provider of

health services must determine how to deal with government interposition. At the same time, the provider must recognize what can be done through local and regional initiative, including joint action with extension services and county authorities. The conference will provide information on Health Systems Agencies, the future of the Health Planning Act, and the politics of rural health.

Primary elections set for May; general elections for November

Primary elections are in May and general elections are in November in Texas to elect state representatives and senators.

The Texas House of Representatives races in 61 of the 150 house districts will be of no contest. Only 20 incumbent House members chose not to seek reelection.

Five House members are running for the Senate. They include Roy Blake, Democrat, Nacogdoches, who is running for Sen Don Adams' seat; Roy English, Arlington, and Mike Milsap, Fort Worth, who are running for the seat held by Sen Betty Andujar, Republican, Fort Worth; Bob Vale, San Antonio, who is running against Sen Frank Lombardino; and Joe Robbins, Republican, Lubbock, who is running for Sen Kent Hance's seat.

Only 19 representatives face opposition in both primary and general elections. Twenty incumbent House member races will be settled by the primaries. Another 20 can relax through the primaries but then must go to work against general election opponents.

Among those who will be returning without a contest are the following committee chairmen: Reps Bill Presnal, Bryan, appropriations; Tom Uher, Bay City, state affairs; Tom Massey, San Angelo, education; and Pete Laney, house administration. Heads of other committees who have no opponents are Ben Grant, Marshall, judiciary; Bill Sullivant, Gainesville, environmental affairs; John Wilson, LaGrange, health and welfare; Gib Lewis, Fort Worth, intergovernmental affairs; Jerry Donaldson, Gatesville, financial institutions; Bennie Bock, New Braunfels, liquor regulations; Tim Von Dohlen, Goliad, constitutional amendments; Joe Hanna, Breckenridge, energy resources; Lynn Nabers, Brownwood, criminal jurisprudence; Jim Nugent, Kerrville, transportation; Tom Craddock, Midland, natural resources; Craig Washington, Houston, social services; and Ben Reyes, Houston, rules.

Races for two state senate vacancies drew crowded fields of candidates and six incumbent senators face either primary or general election opposition. Five Democratic candidates have filed for the West Texas seat vacated by Sen Kent Hance, who is running for US Congress. They include former State Reps Jesse T. George, Delwin Jones, and E.L. Short. Also running are Don Workman and Morris Turner, both of Lubbock. The winner will face Republican state Rep Joe Robbins who is unopposed in the Republican primary.

Four Democrats are in the race for the East Texas State Senate held for forty years by Sen A.M. Aikin, Jr, Paris. Aikin announced he will vacate the position at the end of his term because arthritis makes it impossible to continue the full work load. Candidates include former State Reps George Preston, Paris, and Ed Howard, Texarkana. Also running are Charles McFatridge, Mount Pleasant, and Joe M. Joiner, Sherman.

Incumbent Sen Frank Lombardino, San Antonio, faces a challenge from State Rep Bob Vale and Philip Hardberger, both San Antonio attorneys.

Rep Sen Betty Andujar, the Senate's only female member, is opposed in the Republican primary by Rollie Millirons, Burleson. Democratic primary candidates are Roy English, Arlington, and Mike Milsap, Fort Worth.

Sen Bill Myer, Euless, will face Democrat Jim Lane, Fort Worth, and Drew Shelton, Southlake. Sen John Traeger, Seguin, has no Democratic opponent, but will face Rep Jim Wallace, San Antonio, and La Raza Unida candidate, Juan S. Hernandez, Crystal City, in the general election.

Sen Oscar Mauzy, Dallas, will be opposed by Ted Martin, Dallas, in the general election.

Sen Chet Brooks, Pasadena, is opposed by Millard Heath, Galena Park, in the Democratic primary.

Sens Lloyd Doggett, Austin, Peyton McKnight, Tyler, Lindon Williams, Houston, Raul Longoria, Edinburg, and Ray Farabee, Wichita Falls, are running unopposed in both Democratic primary and general elections.

State Rep Roy Blake, Nacogdoches, seeking the Senate spot vacated by Don Adams, Jasper, who joined Dolph Briscoe's staff, also escaped opposition.

Proposed federal rules allow statewide PSRO in Texas

Proposed rules have been published in the March 3 *Federal Register* that could allow Texas to be designated as a single statewide Professional Standards Review Organization (PSRO).

Since 1973, Texas health care providers including the Texas Medical Association, the Texas Osteopathic Medical Association, and the Texas Hospital Association, have been working to have Texas designated as a single PSRO area.

In May 1973, the TMA House of Delegates authorized the creation of the Texas Institute for Medical Assessment (TIMA) "that qualifies under all applicable laws to perform all of the functions of a PSRO throughout the State of Texas under a single organization."

The proposed rules allow HEW Secretary Joseph Califano to designate statewide PSRO areas in states where no PSRO areas have been designated, and where he has evidence that physicians in the state favor a statewide area.

HEW will consider comments or suggestions about the proposed rules received on or before April 17, 1978. TMA members are urged to submit favorable comments. Address comments to: Assistant Administrator for Professional Standards Review, Room 16-A-55, Parklawn Building, 5600 Fishers Lane, Rockville, Md, 20857.

In supplementary information, HEW states that some states have not been able to enact the PSRO statute because of the failure or inability to accommodate the strong preference of some physicians for the designation of statewide boundaries of the PSRO area in which they are being asked to function.

The TIMA executive committee will meet April 1 to consider the proposed rules, and consider submitting TIMA's application for designation as the Texas PSRO.

When the PSRO assumes its full scope, it will review the professional activities of physicians and other health care providers in acute institutional care for services covered under the Social Security Act—Medicare, Medicaid, and maternal and child health programs.

The review of services provided to Medicare, Medicaid, and maternal and child health beneficiaries must assure that services are medically necessary, meet professional standards, and are provided in the most economical medically appropriate treatment site.

Texas health department asks physicians to report Reye syndrome cases

The Bureau of Communicable Disease Services of the Texas Department of Health is asking physicians to notify the bureau of any possible cases of Reye syndrome occurring in Texas.

Twenty-eight cases of Reye syndrome were reported to the bureau during 1977. Reye syndrome is an acute encephalopathy associated with fatty degeneration of the liver which has been recognized primarily in children through the teen-age years. Most of the reported cases in the United States and all of the 28 identified Texas cases have occurred in persons between the ages of six weeks and 16 years.

According to the national Center for Disease Control, there have been approximately 300 cases of Reye syndrome identified nationwide during the last 12 months.

Clinical features of Reye syndrome include prodromal viral illness; sudden onset of vomiting; encephalopathy following onset of vomiting; elevation of serum SGOT, SGPT, and blood ammonia, accompanied by prolongation of plasma prothrombin time; no jaundice; and normal spinal fluid cell count and protein.

The diagnosis is established by typical changes in liver biopsy. The mortality rate ranges from 20% to 50% and has been decreased by therapy, with particular attention to treatment of cerebral edema.

Coming next month

Articles in the May issue will be on industrial back injuries, scoliosis, osteomyelitis of the tibia, diagnostic errors, evaluation of hoarseness, and regional maldistribution of physicians.

New cheese products utilizing corn oil. Find out all about it at the Golden Image booth.

Get to know GOLDEN IMAGE from Kraft — —for your hyperlipidemic and other patients who must reduce and restrict their daily intake of saturated fats.

Come to the GOLDEN IMAGE convention booth and receive your free GOLDEN IMAGE Patient Starter Kit. The kit contains: a grocery store coupon good for your free package of any GOLDEN IMAGE product; 50 grocery store coupons, worth 50¢ each, for you to give your patients; 50 recipe booklets complete with nutrient content for each recipe; a physicians' brochure explaining the GOLDEN IMAGE products.

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Stop by the convention booth, where a Kraft nutritionist and a home economist will be happy to give you full information and some delicious samples. Or write for your Patient Starter Kit. Send your home address on your professional letterhead to GOLDEN IMAGE, P.O. Box 4322, Chicago, Illinois 60677.

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AT BOOTH NOS. 204-205
TEXAS MEDICAL ASSOCIATION
111TH ANNUAL SESSION
SAN ANTONIO, MAY 11-13, 1978

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Government pay now exceeds private salaries

By 1980, one out of five workers will be employed by a government entity—federal, state, or local.

In the federal sector, the average pay of employees has increased faster than average pay of non-federal workers in the past ten years.

At present, government pay averages about $4,000 a year higher than pay in the private sector. The average pay for federal workers, blue-collar and white-collar, now exceeds $15,700 including a wide range of fringe benefits, of liberal sick leave, paid vacations and holidays, retirement plans, etc.

Federal fringe benefits now total 40.4% of basic salaries for federal workers, excluding the postal service, compared with 32.1% for employees in private industry.

The range of federal salaries ($6,219-$58,245) startles many workers in the private sector; other workers start thinking that "well, maybe the grass is greener on the public payroll." The result: unprecedented interest and competition for federal jobs.

According to the US Civil Service Commission, there were 76 individual inquiries for every available job.

All statistical, salary, and employment data were obtained from the US Civil Service Commission and the US Department of Commerce.

Texas Tech operates family practice pilot project in Crosbyton

The Texas Tech University School of Medicine is operating a pilot project in Crosbyton initially involving family practice residents.

Previously, the Crosbyton Clinic had two physicians. In the six-county area surrounding Crosbyton, there has been one-fourth the number of physicians that an average urban setting with the same population would have.

Now three practicing physicians and two TTUSM residents staff the clinic. Additional TTUSM physicians and residents in family practice, medicine, obstetrics and gynecology, and pediatrics will participate as the program expands.

The establishment of the project is part of TTUSM's effort to attract young physicians to the needy rural areas of West Texas.

"It is important for residents to be exposed to practice in a rural setting," according to Thomas Nicholas, MD, chairperson of family practice.

"Besides improving health care in a particular community, rural residency rotation may encourage residents to select a rural setting for their own practices. This would help alleviate the need for physicians in rural areas."

Crosbyton was chosen as the site for the program because of its need, location, and expressed desire to work in cooperation with the medical school.

The pilot project enables Crosbyton to have a staffed emergency room 24 hours daily. Community physicians, TTUSM physicians and residents will rotate night call and weekend call.

American Dietetic Association recommends national nutrition education policy

The current printed and broadcast nutrition information—sound, unsound and debatable—contributes to both food faddism and public apathy, according to the American Dietetic Association.

Evidence shows that faulty nutrition and diet are risk factors that precipitate crippling and killing diseases. To promote well-being through educated eating habits, the American Dietetic Association recommends that nutrition professionals work with legislators to develop a program of nutrition education in the nation.

In a position paper on "The Scope and Thrust of Nutrition Education," published in the *Journal of the American Dietetic Association,* the ADA urges high priority for developing a national nutrition policy designed to include a comprehensive education program.

In schools, the ADA says lunch facilities should double as laboratories for teaching nutrition, as they are now in a few school systems.

Quality health care requires nutrition education as an essential component of all programs. The ADA recommends that third-party reimbursement plans should specify nutrition education and diet counseling as required reimbursable services, and that nutrition education and diet counseling should be part of the array of services offered in health care settings.

The association also recommends that public

Brief Summary of Prescribing Information

Actions: Pyrvinium pamoate appears to exert its anthelmintic effect by preventing the parasite from using exogenous carbohydrates. The parasite's endogenous reserves are depleted, and it dies. Povan is not appreciably absorbed from the gastrointestinal tract.

Indication: Povan is indicated for the treatment of enterobiasis.

Warnings: No animal or human reproduction studies have been performed. Therefore, the use of this drug during pregnancy requires that the potential benefits be weighed against its possible hazards to the mother and fetus.

Precautions: To forestall undue concern and help avoid accidental staining, patients and parents should be advised of the staining properties of Povan. Care should be exercised not to spill the suspension because it will stain most materials. Tablets should be swallowed whole to avoid staining of teeth. Parents and patients should be informed that pyrvinium pamoate will color the stool a bright red. This is not harmful to the patient. If emesis occurs, the vomitus will probably be colored red and will stain most materials.

Adverse Reactions: Nausea, vomiting, cramping, diarrhea, and hypersensitivity reactions (photosensitization and other allergic reactions) have been reported. The gastrointestinal reactions occur more often in older children and adults who have received large doses. Emesis is more frequently seen with Povan Suspension than with Povan Filmseals.

How Supplied: Each Povan Filmseal® contains pyrvinium pamoate equivalent to 50 mg pyrvinium, supplied in bottles of 50 (NDC 0710-0747-50; NSN 6505-00-134-1966). Povan Suspension, a pleasant-tasting, strawberry-flavored preparation containing pyrvinium pamoate equivalent to 10 mg pyrvinium per milliliter, is supplied in 2-oz bottles (NDC 0071-1254-31; NSN 6505-00-890-1093).

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health agencies should be funded to strengthen leadership in developing the nutrition education component of protective health care services, and public, voluntary, and private health agencies' efforts should be coordinated to reach specified nutritionally vulnerable segments of the population.

Screening examination developed for foreign nursing school graduates

For the first time, a screening examination for professional nurses throughout the world who wish to immigrate to the United States and practice nursing will be given at 32 locations in 30 countries Oct 4, 1978. According to the Texas Nurses Association, announcement of the exams was made by the Commission on Graduates of Foreign Nursing Schools.

The commission's examination was developed in response to the increasing immigration to the United States of foreign educated nurses. At times as many as 8% of these nurse immigrants fail to pass the US licensing tests that measure the minimum competency of would-be registered nurses.

At the urging of the federal sector, the commission was established by two major US nursing organizations, the American Nurses' Association and the National League for Nursing, to test foreign nursing school graduates in their own countries.

The examination will cover the same five areas of nursing (medical, surgical, obstetric, pediatric and psychiatric) which nurses are taught in the United States and are included in state licensing examinations. Additionally, the examination will cover proficiency in English.

Between 1972 and 1976, more than 42,000 foreign nurse graduates came to the United States on a temporary or permanent basis. Of 15,077 foreign nurse graduates who took state licensing examination in 1975, fewer than 20% passed.

"Of the foreign nurse graduates taking state examination in 1976," Adele Herwitz, the commission's executive director, said, "84% failed. These people had presumably received their visas to immigrate on the basis of being able to practice as nurses, and then, not being licensed, were not able to hold positions as registered nurses. Part of this problem probably can be attributed to the lack of fluency in the English language."

To take the test in October, applicants must have graduated from a secondary school and a government-approved nursing school whose two-year or more curriculum covers medical, surgical, pediatric, psychiatric and obstetric nursing and passed any licensing examination required by the applicant's own country. A completed application, a $65 US examination fee, and certain documents must be submitted to the commission. Completed applications must be received by July 1.

A detailed information booklet may be obtained from American embassies, consulates or missions, from national nursing associations, and from the commission at 3624 Market St, Philadelphia, PA 19104. Starting in 1979, the qualifying examination will be given twice a year.

Federal government issues new Health Maintenance Organization rules

The federal government has issued new rules requiring Health Maintenance Organizations to make their services available and accessible around the clock, to operate on a fiscally sound basis, and to create governing bodies with more consumer representation.

In addition, the regulations cut the paperwork for Medicare and Medicaid patients who enroll in HMOs.

Joseph Califano, Secretary of Health, Education, and Welfare, said the rules "constitute an important step in our drive to expand" HMOs.

"The new rules are designed to ease the administrative burden which HMOs have faced in the past," he said.

One change would reimburse HMOs that serve Medicare patients for the cost of insurance the HMOs buy against catastrophic illness among their members.

Another regulation eliminates different standards for Medicare and Medicaid patients.

The provision to broaden consumer representation on HMO governing bodies calls for the organizations to reserve at least one-third of the membership on the governing board for people who receive their care from the HMO but have no financial interest in it.

Time is the test of all things.

1954
1978

BRIEF SUMMARY

Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. May be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.

Precautions: Potassium intoxication by oral administration rarely occurs in patients with normal kidney function, however, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentrations of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a low-salt diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation.

Adverse Reactions: Nausea, vomiting, diarrhea, and abdominal discomfort have been reported. The most severe adverse effect is hyperkalemia.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications". Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

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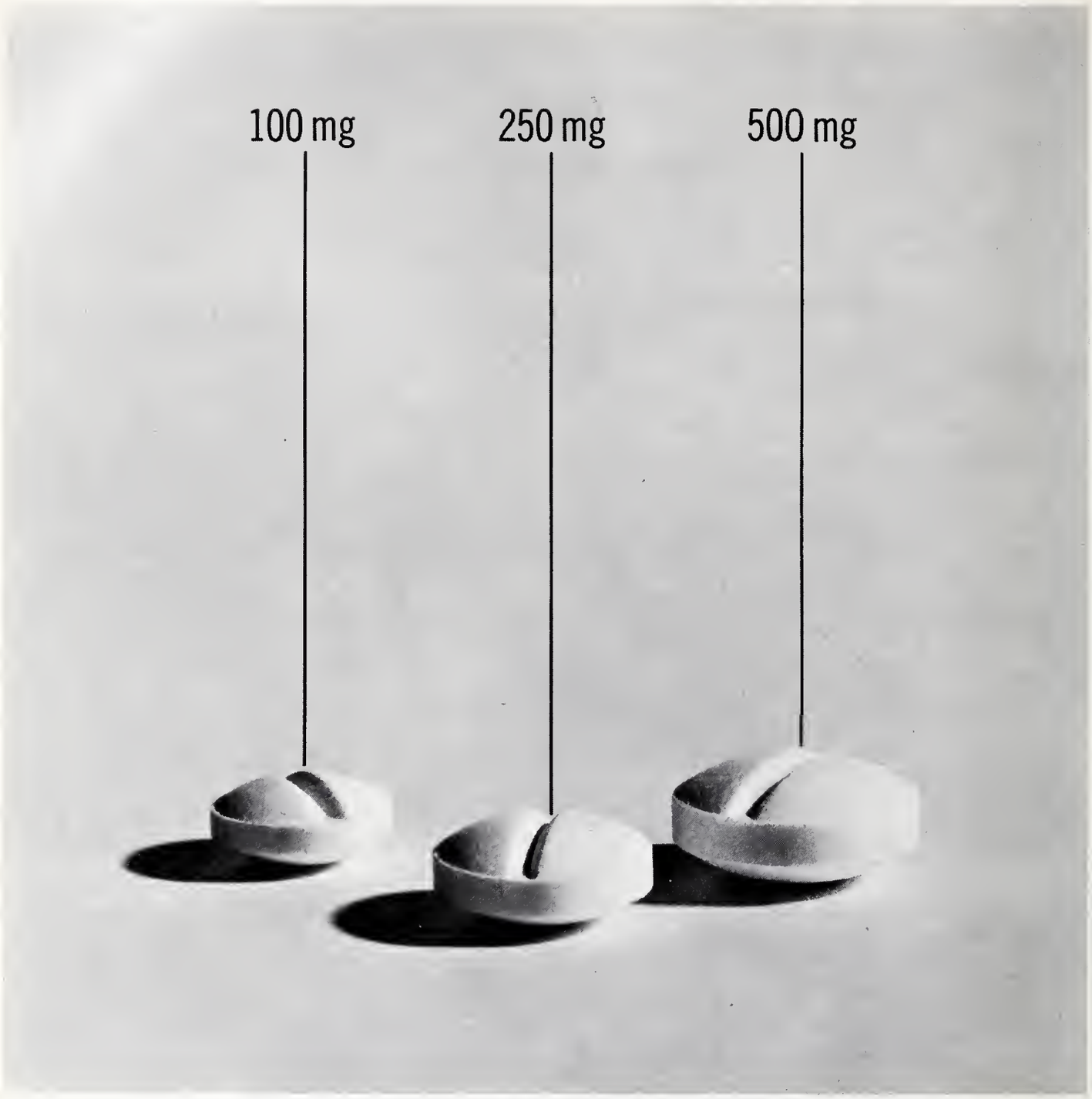

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UT medical school in Galveston will host humanities seminar for physicians

The University of Texas Medical Branch at Galveston has been selected to host one of the 1978 National Endowment for the Humanities (NEH) Seminars for Physicians and Other Health Care Professions.

According to Chester R. Burns, MD, associate director of the institute and seminar director, NEH has provided a $33,812 grant to fund the UTMB seminar scheduled Sept 11-Oct 6. The topic will be "The Quest for Professional Ethics in American Medicine: An Historical Exploration."

Dr Burns said the seminar will have goals to provide participants with facts about the history of ethics in Western and American medicine, to provide explanations and interpretations of these facts, to teach participants methods of continuing their education of the history of medical ethics, and to provide a setting to allow participants to utilize historical knowledge to assess individual beliefs about the nature of medical ethics.

Participation in the seminar is by application only, and the deadline for applying is April 17. For applications and additional information write or call Chester R. Burns, MD, or David Tanner, Institute for the Medical Humanities, The University of Texas Medical Branch, Galveston, 77550, (713) 765-2376.

Blue Cross and Blue Shield plans experiment with second opinions

The concept of the second opinion as a normal professional precaution is hardly new to medical practice, but as an agent of cost control the term is gaining a new significance, according to an article in *The Blue Shield News* Jan 1978.

Recent concern about the cost of unnecessary surgery has spawned about 100 experimental programs across the country to see if second opinions, paid for by insurers, result in fewer operations and lower health care costs. The results of those programs aren't in and won't be for several years.

The issue of unnecessary elective surgery peaked in 1976 when a Congressional subcommittee reported that such surgery costs the country $4 billion annually. The subcommittee cited a 1974 study conducted by Dr Eugene McCarthy of the Cornell University Medical College. Using Dr McCarthy's figures, the subcommittee estimated that approximately 2.4 million elective surgical procedures were unnecessary in 1974.

The figures were — and are — controversial because of a lack of valid data to challenge or support them. In an attempt to gather such data, Blue Cross and Blue Shield Plans are experimenting with second opinion programs.

The first plan to implement a second opinion program was Greater New York. The plan started investigating the feasibility of a program in 1971 and implemented one in Jan 1976. Since then, programs have been formed at Blue Shield of Pennsylvania, Blue Shield of New Jersey, Blue Cross and Blue Shield of Illinois, Blue Shield of Massachusetts, Blue Cross and Blue Shield of Michigan, and Ohio Medical Indemnity.

These programs range in size from a few thousand to 1.5 million subscribers. Recently, some national accounts have requested that second opinion benefits be provided for their nationwide employees, so other plans are in the process of implementing or investigating programs.

The approach used by the various plans is basically the same. Usually, a number of surgeons is enrolled as a consultant panel. A Blue Shield subscriber considering elective surgery contacts a referral center and obtains the name of a few panelists. The plan pays the consultant a fee for consultation and any necessary ancillary services. In some cases, the subscriber may seek a third opinion at plan expense if the second opinion differs from the first. Plans record the information and follow each non-confirmed case for a period of time to determine whether surgery has been eliminated or merely postponed.

Open panel

The Pennsylvania Plan's program varies slightly in that subscribers do not have to select a panel physician from a referral center. They may choose any licensed physician.

For a largely rural state such as Pennsylvania, the open panel approach is best, says Arland Wagonhurst, plan project manager for product development.

"Pennsylvania couldn't possibly support a closed panel approach because there aren't

HERE'S A LIST OF ALL MALPRACTICE INSURANCE COMPANIES IN TEXAS THAT REDUCED PREMIUMS LAST YEAR AND WHERE ALL PROFITS ACCRUE TO THE BENEFIT OF DOCTOR POLICYHOLDERS...

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enough certified surgeons outside the major cities," he explains.

Wagonhurst feels there are enough deterrents to the concept already without adding another. "Patients don't want to travel a distance just so they could obtain a second opinion from a certain surgeon," he says.

Most plans require that the first opinion come from a surgeon, but the New Jersey Plan does not. The first opinion may come from any licensed physician.

"We're looking at it from the consumer's point of view," says Robert Fioretti, plan program manager, "and we're trying to save him money." He explains that by not requiring a surgeon's first opinion, they've possibly saved the patient an extra office visit.

Voluntary programs

All the plan programs are strictly voluntary. Groups offered the opportunity to join the experiment are not required to participate. Subscribers within participating groups may or may not elect to use the benefit. Also, a subscriber who obtains a non-confirming second opinion may decide to have surgery anyway and the plan will provide coverage.

The plans within New York state are the only ones open to all subscribers. In 1976, New York passed a law mandating insurers to pay for a second opinion if requested by the subscriber.

Plans without an active second opinion program quickly had to devise one. The Albany Plan's program is similar to Greater New York's in that a referral center is used, but the Buffalo Plan refers subscribers seeking a second opinion to the local medical society, which provides names of consultants.

Anne Fialko, the Buffalo Plan's manager of post-payment utilization review, says that only 13 requests for second opinions have been received.

Other plans say group enrollment within their programs has been slow and utilization has been even slower.

The New Hampshire-Vermont Plan started an experimental 90-day program involving 4,000 people in 1976 and discontinued it because only one individual sought a second opinion.

The Illinois Plan, whose program started last spring with 20,000 subscribers, reports that as of October only 14 people obtained a second opinion.

Government interest

Even though the consumer hasn't jumped at the chance to accept the second opinion concept, the government is beginning to think it's at least worth a try. Massachusetts last spring made it mandatory for Medicaid recipients to obtain a second opinion for certain elective surgical procedures. In November, the Department of Health, Education and Welfare announced it will be encouraging Medicare and Medicaid recipients to seek second opinions. HEW also awarded grants to the Greater New York and Michigan Plans to conduct a three year experiment for Medicare beneficiaries in their areas. Beneficiaries will be able to obtain a second opinion at no cost to them.

The purpose of the Blue Cross and Blue Shield experimental programs is, of course, to collect and analyze data to determine if the programs are cost effective. The Greater New York program probably will be the first to release short-term statistics. For long-term statistics, however, it will take three to five years to collect and analyze enough data to fully demonstrate whether there is a cost savings. This is because a patient who obtains a non-confirming second opinion must be tracked for a long period to determine if he eventually obtains the surgery.

In the meantime, the Blue Shield Association is formulating guidelines to help other plans set up such experiments.

Charles A. LeMaistre, MD, named UT System Cancer Center president

Charles A. LeMaistre, MD, chancellor of The University of Texas System, has been named president of The University of Texas System Cancer Center in Houston, which includes M.D. Anderson Hospital and Tumor Institute.

Dr LeMaistre succeeds R. Lee Clark, MD, who is retiring after more than 30 years' service as president of the cancer center.

Dr LeMaistre has been affiliated with the UT System administration since 1966, when he was appointed vice chancellor for health affairs. Subsequently, he has served as executive vice chancellor for health affairs, May 1968-June 1969; deputy chancellor, June 1969-July 1970; chancellor-elect, July 1970-Dec 1970, and chancellor, Jan 1, 1971, to the present.

Dr LeMaistre came to Austin from the UT Southwestern Medical School in Dallas, where he

was professor of internal medicine and associate dean.

Apart from his official duties with the UT System, Dr LeMaistre is a member of the National Council on Educational Research and chairman of its subcommittee on diversity and pluralism, and a member of the board of commissioners of the National Commission on Accrediting. He also serves on the American Pharmaceutical Association-American Association of Colleges of Pharmacy joint task force on continuing competence.

From 1971 to 1973, he was a member of the Commission on Non-Traditional Study, and in 1971 he was a member of the President's Commission on White House Fellows.

He has served as vice chairman of the advisory committee on health protection and disease prevention, US Department of Health, Education and Welfare; a consultant to HEW's Bureau of Health Manpower; a member of the Surgeon General's advisory committee on emergency health preparedness, and the New York City task force on tuberculosis.

Laetrile users should monitor their diets, AMA reports

Cancer patients who are taking Laetrile should select carefully the foods they eat, a group of University of California researchers warn. Failure to do so could be fatal.

Laetrile, a derivative of apricot pits, has been the focus of much controversy. Its advocates claim it to be an effective cancer treatment, "even less toxic than sugar." Most medical authorities believe the compound is not effective and potentially poisonous.

Writing in the *Journal of the American Medical Association,* the research team notes that many popular fruits and vegetables—including almonds and certain other nuts, lettuce, celery, peaches and related fruits, bean and alfalfa sprouts, among other things—contain chemicals called hydrolytic enzymes.

Laetrile, in turn, is chemically a cyanogenic glycoside. When cyanogenic glycosides come in contact with foods containing hydrolytic enzymes, the resulting mixture is hydrogen cyanide (HCN), a deadly poison.

HCN acts quickly, attacking the heart, brain and central nervous system. Within one to five minutes, the patient may experience difficulty breathing, have difficulty walking, have an urge to vomit, have convulsions, and lapse into unconsciousness.

If the dose of HCN has been sufficiently large, death may ensue within a matter of a few minutes to a few hours. In cases where the patient recovers, there are, at times, changes in personality a few days or a few months later.

Laetrile can yield an amount of HCN equal to about 6% of its own weight. One almond can release 48 mg of HCN from Laetrile, the *JAMA* report says.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media*	1978 through 2/28	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	− 7.5%	+38.0%	−23.1%	1.8%
Loomis-Sayles Mutual Fund	− 8.0%	+25.3%	−18.2%	4.4%
Mercantile Bank Equity Fund	− 7.2%	+44.0%	−28.9%	4.9%
Mercantile Bank Fixed Income Fund	− 0.9%	+10.7%	− 8.2%	7.3%
T Rowe Price Growth Stock Fund	− 9.9%	+33.9%	−33.8%	2.4%
T Rowe Price New Income Fund	− 2.1%	+ 6.6%	N/A	7.9%
Stein Roe & Farnham Balanced Fund	− 8.6%	+25.8%	−23.8%	3.9%
Standard & Poor 500 Stock Average	− 8.5%	+38.8%	−19.4%	
Dow Jones Industrial Average	−10.7%	+34.8%	−18.5%	

*Includes reinvested capital gains distributions.

CAPITAL COMMENTS

WASHINGTON: HEALTH INSURANCE. Ninety-four percent of Americans have health insurance, only 6% have none. The number of Americans in the gap between private insurance coverage and public assistance is much lower than has been widely believed, a new study reveals. A recent Congressional budget office estimate put the unprotected figure at 18 million persons, while other estimates have ranged as high as 40 million. The new study, "National Health Insurance Issues: The Unprotected Population," indicates that 94% of the American public has some sort of health care insurance; 6%, or 12.2 million people, have none. Most of those with no protection are among the working poor. Most of the people with no protection are those who are unemployed, underemployed, self-employed, or virtually uninsurable because of poor health. Half of them, almost 7 million, earn less than $10,000 per family annually. They are not poor enough to qualify for Medicaid, old enough to apply for Medicare, or financially able or healthy enough to buy private coverage, the study says. The findings are the result of 18 months of work by Washington-based researchers Stephen G. Sudovark, Jr, and Kathleen Sullivan to determine how many people are in the unprotected category and who they are. For the study, coverage was defined as protection against the expense of hospitalization and in hospital physical care. The study indicates that 154.5 million Americans are covered through private insurance plans; 37.5 million are enrolled in Medicare and Medicaid; and the remaining 10.3 million receive care through either the armed forces, state and federal prison systems, Indian health programs, or other governmental institutional memberships. Thus, 13 of 17 Americans today purchase their health care coverage either directly or indirectly; 3 out of 17 receive it from the government; and the remaining 1 in 17 represents the protection gap. The authors suggest that national health insurance, as a first step, should aim at providing protection for hospitalization and in-hospital physician costs to those in the coverage gap.

Editor's note: "Capital Comments" is prepared by Brown, Maroney, Rose, Baker & Barber, Attorneys at Law, TMA General Counsel, to highlight current items of interest relating to health matters in the US Congress federal agencies, state legislature, and Texas administrative agencies.

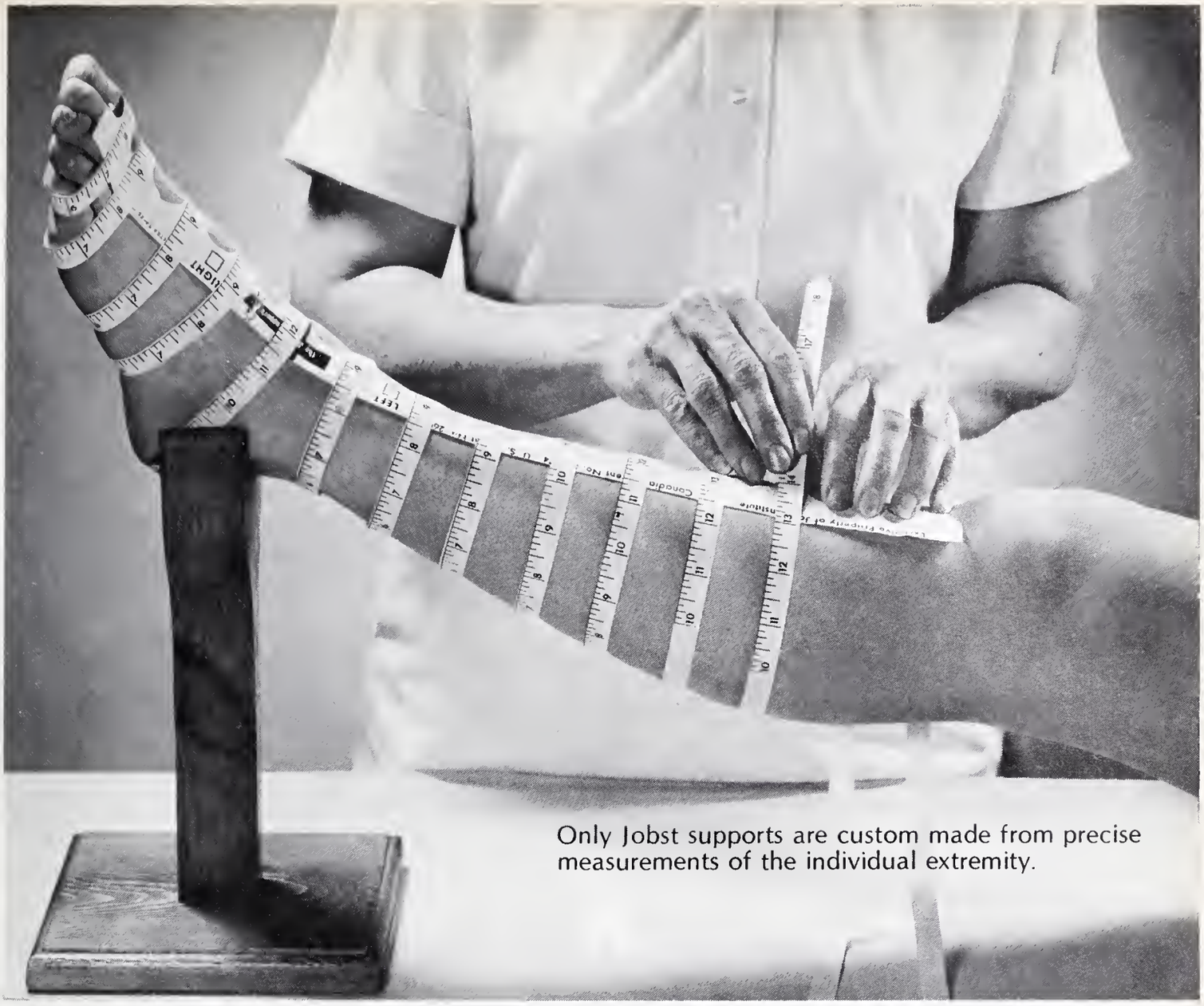
AUSTIN: REMOVAL OF CORNEAL TISSUE. The Texas Attorney General's Opinion No. H-1109 states that the medical examiner or justice of the peace may permit the removal of corneal tissue by an eye bank official for a decedent who dies under circumstances requiring an inquest without the prior consent of the decedent's next of kin. The Texas Attorney General has ruled that because of the positive authorization in the bill and the protection from liability it is clear that, so long as no objection has been made, consent of the next of kin is not necessary for the removal of corneal tissue from a decedent who died under the specified circumstances.

WASHINGTON: CLINICAL LABORATORIES LEGISLATION. Individual physician offices and offices of groups of up to five physicians are exempt from national standards for clinical laboratories in subcommittee developed legislation approved by the House Interstate and Foreign Commerce Health Committee. The

new legislation, HR 10909, proposes that clinical laboratories have federally mandated national standards, regulation and licensure. Only limited exemptions are allowed. Complete exemption is provided for physicians who personally conduct the laboratory tests for his patients. The offices of a physician group of up to five physicians is exempt from the national standards if the laboratory tests are performed only for the patients of the practitioners. In the latter case, the physician need not personally perform the test. The American Medical Association testified before Congress last year urging broad exemptions of physician office laboratories from the bill. Other laboratories receiving immunity from the standards include those performing tests for biomedical and behavior research and laboratories conducting tests only for insurance companies. Two-year exemptions from national standards are given to laboratories in rural areas.

WASHINGTON: REVIEW BY HEALTH SYSTEMS AGENCIES. A tentative list of 17 Bureau of Health Manpower programs requiring Health System Agencies (HSA) review is being sent to potential applicants along with fiscal 1978 grant applications for relevant programs. The HSA is required by the National Health Planning and Resource Development Act, PL 93-641, Section 1513 (e)(1)(b) to review project grant applications for which the funds requested will be used to support the development of health resources intended for use in the health service area or the delivery of health services. Though only a few of the 205 conditionally designated HSAs have been fully designated, all HSAs are authorized to review and comment on proposed projects. The approval-disapproval authority for fully designated HSAs is still being reviewed. HSAs have 60 days to complete their review. Applicants are advised to submit applications simultaneously to the Bureau of Health Manpower and the appropriate HSA to insure that the 60-day review period will be met. Programs authorized under the Health Professional Education Assistance Act of 1977, PL 94-484, and tentatively listed for HSA review include health professions teaching facility grants, loan guarantees, interest subsidies, start up assistance, interdisciplinary team training, bilingual health clinical training centers, and regional health professional schools. The programs also include regional systems of continuing education, medical school developmental costs (emphasizing family medicine), area health education centers, physician assistant training, primary care training, and family medicine residencies. Other programs include training in emergency medicine and regional or state systems for the coordination and management of education and training for allied health personnel and nurses. Nurse practitioner programs under the Nurse Training Act of 1975, PL 94-63, are tentatively listed for HSA review.

WASHINGTON: ECONOMICS OF FEDERAL REGULATIONS. Legislation designed to point out the full economic impact of federal regulations has been introduced by Rep Elliott Levitas (D-Ga). The legislation, based on a draft bill developed by the American Medical Association, would require the preparation and publication in the *Federal Register* of an economic impact analysis. Analysis would include a discussion of direct costs of regulation.



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Reference 1 Data on file. Mead Johnson Pharmaceutical Division.

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Theophylline dosage may be cautiously increased to 2000 mg/24 hour in adults and 9 or 10 mg/kg every 6 hours in children. Monitoring of serum theophylline levels at higher dosages is recommended.
Precautions: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.
Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 μg/ml.
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MJL 7-4280

MEETINGS

HOUSTON SOCIETY OF CLINICAL PATHOLOGISTS

The Pathologist and Breast Diseases Today is the subject of the 18th annual seminar of the Houston Society of Clinical Pathologists. The seminar will be held from 9 am to 5 pm, Saturday, April 29, 1978, in the Jesse Jones Library auditorium, Texas Medical Center, Houston. Four national authorities on the pathology of breast disease will discuss 18 cases. There also will be presentations on the problems of mammography and current status of screening for breast cancer.

Contact: Mrs Luna, Coordinating Sec, Department of Pathology, Baylor College of Medicine, 1200 Moursund, Houston 77030.

SOCIETY FOR BIOMATERIALS

April 28-May 2, 1978, are the dates of the Society for Biomaterials' fourth annual meeting. The meeting, hosted by Southwest Research Institute, will take place at the Hilton Palacio del Rio Hotel in San Antonio. Instructional Technical sessions in the San Antonio Convention Center, will focus on dental and orthopedic implants, tissue response and interfacing, cardiovascular materials, and material characterization. The programs are certified for 15 hours under category 1 toward the Physician's Recognition Award of the American Medical Association.

Contact: Society for Biomaterials, c/o C. William Hall, MD, Southwest Research Institute, Drawer 28510, San Antonio, Tex 78284.

TEXAS SOCIETY OF CHILD PSYCHIATRY

The Texas Society of Child Psychiatry will meet at the Mayan Dude Ranch in Bandera, April 14-16, 1978. The program features Drs Gene Hornsby and Carl Pfeifer. Dr Hornsby will present a paper entitled, "Clinical Applications of Margaret Mahler's Object Relations Theory," and Dr Pfeifer will chair a panel on planning for children's psychiatric services. The meeting qualifies for six hours credit under category 1 toward the Physician's Recognition Award of the American Medical Association.

Contact: Frank E. Crumley, MD, Sec, 3600 Gaston Ave, Dallas 75246.

CURRENT NATIONAL MEETINGS

AMERICAN ACADEMY OF PEDIATRICS, Spring Session, Century Plaza Hotel, Los Angeles, Apr 8-13, 1978. Topics include problems of childhood cancer, fetal alcoholism, infectious disease, adolescent gynecology, pediatric emergencies. California State Senator Jerome Smith to present keynote address. Plenary sessions, round table discussion groups, workshops, scientific and technical exhibits. 33 hours, category 1, AMA Physician's Recognition Award. Fees: members, applicants, physicians in armed forces, $40; emeritus members, candidate members, non-medical spouses, no fee; non-members, $90; nurses, interns, residents, $15. Contact: 1801 Hinman Ave, Evanston, Ill 60204.

AMERICAN COLLEGE OF PHYSICIANS, 59th Annual Session, Boston, Apr 17-20, 1978. Scientific program focuses on clinical pharmacology. Panels, symposia, meet the professor sessions, workshops, state of the art lectures. More than 300 new Fellows to be inducted into the College during convocation ceremony. Jeremiah A Barondess, MD, FACP, New York, to be installed as new president. Contact: Convention Department, 4200 Pine St, Philadelphia 19104.

AMERICAN OCCUPATIONAL MEDICAL ASSOCIATION, American Occupational Health Conference, Fairmont Hotel, New Orleans, Apr 10-14, 1978. Registrants expected to include physicians, nurses, industrial hygienists, safety engineers, public health officials, academicians, management representatives. More than 20 scientific sessions. Technical, scientific exhibits. Contact: 150 N Wacker Dr, Chicago 60606.

NATIONAL COUNCIL ON THE AGING, INC, 28th Annual Conference, Sheraton St Louis, Apr 16-19, 1978. Theme: Preparing for the eighties—the new challenge. Major topics include implications of welfare reform, employment issues and concerns, life-long learning—everyone's right, concerns of rural and urban elderly, future directions. Registration fees: members, $90; nonmembers, $140; combined registration and new membership, $120; senior registration, $1 per day. Contact: Barbara Freda, 1828 L St, NW, Washington, DC 20036.

For other courses and symposia, see Continuing Education Courses, pp 37-44.

APRIL

AMERICAN CLEFT PALATE ASSOCIATION, Atlanta, Apr 5-8, 1978. Mrs Flora P Berk, Admn Sec, 331 Salk Hall, University of Pittsburgh, Pa 15261.

AMERICAN COLLEGE OF ALLERGISTS, Las Vegas, Nev, Apr 1-6, 1978. 2141 14th St, Boulder, Colo 80302.

AMERICAN GERIATRICS SOCIETY, INC, Atlanta, Apr 13-14, 1978. Mrs Kathryn S Henderson, Exec Dir, 10 Columbus Circle, New York 10019.

AMERICAN COLLEGE OF PHYSICIANS, Boston, Apr 17-20, 1978. RH Moser, MD, Exec Vice-pres, 4200 Pine St, Philadelphia 19104.

AMERICAN COLLEGE OF RADIOLOGY, San Diego, Apr 9-14, 1978. WC Stronach, Exec Dir, 20 N Wacker Dr, Chicago 60606.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY, Palm Beach, Fla, Apr 25-27, 1978. RL Ruggles, MD, Exec Sec, c/o Ann Holm, 2954 Dorman Rd, Broomall, Pa 19008.

AMERICAN MEDICAL ASSOCIATION, 31st National Conference on Rural Health, Denver, Apr 5-7, 1978. Department of Meeting Services, 535 N Dearborn, Chicago 60610.

AMERICAN MEDICAL SOCIETY ON ALCOHOLISM, St Louis, Apr 27-May 3, 1978. JG Chen See, MD, Sec, 733 Third Ave, New York 10017.

■ AMERICAN MEDICAL STUDENTS ASSOCIATION-UT MEDICAL BRANCH NATIONAL STUDENT RESEARCH FORUM, Galveston, Tex, Apr 26-29, 1978. 209 Basic Sciences Bldg, UT Medical Branch, Galveston, Tex 77550.

AMERICAN OCCUPATIONAL MEDICAL ASSOCIATION, New Orleans, Apr 10-14, 1978. Howard N Schulz, Exec Dir, 150 N Wacker Dr, Chicago 60606.

AMERICAN PHYSIOLOGICAL SOCIETY, Atlantic City, NJ, Apr 9-14, 1978. OE Reynolds, PhD, Exec Sec-Treas, 9650 Rockville Pike, Bethesda, Md 20014.

■ ASSOCIATION OF UNIVERSITY RADIOLOGISTS, San Antonio, Tex, Apr 30-May 4, 1978. Mrs SA Aubin, Exec Sec, 20 N Wacker Dr, Chicago 60606.

CENTER FOR CHINESE MEDICINE, Los Angeles, Apr 29-30, 1978. 230 S Garfield Ave, Monterey Park, Calif 91754.

■ HOUSTON SOCIETY OF CLINICAL PATHOLOGISTS, Houston, Apr 29, 1978. Mrs Luna, Coordinating Sec, Department of Pathology, Baylor College of Medicine, 1200 Moursund, Houston 77030.

ILLINOIS STATE MEDICAL SOCIETY, Chicago, Apr 1-5, 1978. RN White, Exec Admn, 55 E Monroe St, Suite 3510, Chicago 60603.

MEDICAL ASSOCIATION OF GEORGIA, Jekyll Island, Ga, Apr 21-23, 1978. JM Moffett, Exec Dir, 938 Peachtree St NE, Atlanta 30309.

NATIONAL CONFERENCE ON HIGH BLOOD PRESSURE CONTROL, Los Angeles, Apr 2-4, 1978. Conference Headquarters, 1501 Wilson Bldg, Suite 600, Arlington, Va 22209.

NATIONAL COUNCIL ON THE AGING, St Louis, Apr 16-19, 1978. Barbara Freda, Conference Coordinator, 1828 L St, NW, Washington, DC 20036.

NEBRASKA MEDICAL ASSOCIATION, Lincoln, Neb, Apr 30-May 3, 1978. KE Neff, Exec Sec, 1901 First National Bank, Lincoln, Neb 68508.

NEW MEXICO PEDIATRIC SOCIETY, Taos, NM, Apr 1-2, 1978. Pug Burge, Department of Pediatrics, University of New Mexico, School of Medicine, Albuquerque, NM 87131.

PAN-PACIFIC SURGICAL ASSOCIATION, Honolulu, Apr 1-7, 1978. Cesar B deJesus, MD, Sec, Public Relations, Room 237, Alexander Young Bldg, Honolulu 96813.

■ SOCIETY FOR BIOMATERIALS, San Antonio, Tex, Apr 29-May 2, 1978. C William Hall, MD, Program Committee Co-Chmn, 8500 Culebra Rd, San Antonio, Tex 78284.

STATE MEDICAL SOCIETY OF WISCONSIN, Milwaukee, Apr 13-15, 1978. ER Thayer, Sec and Gen Mgr, 330 E Lakeside, Madison, Wis 53701.

■ TEXAS SOCIETY OF CHILD PSYCHIATRY, Bandera, Tex, Apr 14-16, 1978. FE Crumley, MD, Sec, 3600 Gaston Ave, Dallas 75246.

MAY

AMERICAN ACADEMY OF FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY, Palm Beach, Fla, May 1978. ME Tardy, Jr, MD, Sec, 2800 Lake Shore Dr, Chicago 60657.

■ AMERICAN ACADEMY OF PEDIATRICS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. William S Conkling, MD, Chmn, Box 311, Navasota, Tex 77868.

AMERICAN ACADEMY OF PSYCHOANALYSIS, Atlanta, May 5-7, 1978. Ms C Bruskin, Exec Sec, 40 Gramercy Park N, New York 10010.

AMERICAN ASSOCIATION OF CLINICAL UROLOGISTS, Washington, DC, May 19-20, 1978. BH Farber, Jr, Admn Officer, 2017 Walnut St, Philadelphia 19103.

AMERICAN ASSOCIATION FOR THORACIC SURGERY, New Orleans, May 8-10, 1978. WT Maloney, Exec Sec, 6 Beacon St, Suite 620, Boston 02108.

■ AMERICAN COLLEGE OF CHEST PHYSICIANS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. Charles B Shuey, Jr, MD, Pres, 3500 Gaston Ave, Dallas 75246.

AMERICAN COLLEGE OF LEGAL MEDICINE, San Francisco, May 5-7, 1978. Ms B Hanna, Exec Sec, 1340 N Astor St, Suite 2608, Chicago 60610.

AMERICAN LUNG ASSOCIATION, Boston, May 14-17, 1978. WF Roberts, Acting Mng Dir, 1740 Broadway, New York 10019.

AMERICAN PEDIATRIC SURGICAL ASSOCIATION, Hot Springs, Va, May 3-6, 1978. JA O'Neill, Jr, MD, Sec, Department of Pediatric Surgery, Vanderbilt University Hospital, Nashville, Tenn 37232.

AMERICAN PSYCHIATRIC ASSOCIATION, Atlanta, May 8-12, 1978. Dr M Sabshin, Med Dir, 1700 18th St NW, Washington, DC 20009.

AMERICAN PSYCHOANALYTIC ASSOCIATION, Atlanta, May 3-7, 1978. Ms H Fischer, Admn Dir, One E 57th St, New York 10022.

AMERICAN SOCIETY FOR GASTROINTESTINAL, Las Vegas, Nev, May 24, 1978. WT Maloney, Exec Sec, 6 Central Tower Bldg, 703 Market St, San Francisco 94103.

AMERICAN SOCIETY OF INTERNAL MEDICINE, San Francisco, May 4-7, 1978. WR Ramsey, Exec Dir, 535 Beacon St, Suite 620, Boston 02108.

■ FLYING PHYSICIANS ASSOCIATION, TEXAS CHAPTER, San Antonio, Tex, May 11, 1978. M Young Stokes III, MD, Pres, 331 W Morton St, Denison 75020.

■ INTERNATIONAL COLLEGE OF SURGEONS, TEXAS STATE SURGICAL DIVISION, San Antonio, Tex, May 11, 1978. Vincent T Caldarola, MD, Pres, 1001 Rosa Verde Towers, San Antonio, Tex 78205.

OKLAHOMA STATE MEDICAL ASSOCIATION, Oklahoma City, May 4-7, 1978. D Bickham, Exec Dir, 601 NW Expressway, Oklahoma City 73118.

SOCIETY OF BIOLOGICAL PSYCHIATRY, Atlanta, May 4-7, 1978. Dr AW Epstein, Sec-Treas, 1430 Tulane Ave, New Orleans 70112.

■ TEXAS AIR-MEDICS ASSOCIATION, San Antonio, Tex, May 11, 1978. David F Eanes, Jr, MD, Pres, 518 N Fifth St, Temple, Tex 76501.

■ TEXAS ASSOCIATION OF NEUROLOGICAL SURGEONS, San Antonio, Tex, May 12, 1978. Robert A Partain III, MD, Vice-Pres & Prog Chmn, 510 Madison Professional Bldg, San Antonio, Tex 78215.

■ TEXAS ASSOCIATION OF PHYSICIANS IN NUCLEAR MEDICINE, San Antonio, Tex, May 13, 1978. Stanley E Hodges, Jr, MD, Pres, 3434 Swiss Ave #20, Dallas 75204.

■ TEXAS ASSOCIATION OF PUBLIC HEALTH PHYSICIANS, San Antonio, Tex, May 11, 1978. John L Bradley, MD, Pres, Box 10736, El Paso, Tex 79997.

■ TEXAS DERMATOLOGICAL SOCIETY, San Antonio, Tex, May 12, 1978. James H Strauch, MD, Prog Chmn, 4K Medical Professional Bldg, San Antonio, Tex 78212.

■ TEXAS DIABETES AND ENDOCRINE ASSOCIATION, San Antonio, Tex, May 12, 1978. Jaime A Davidson, MD, Vice-Pres, 301 W Colorado, Dallas 75208.

■ **TEXAS MEDICAL ASSOCIATION, Annual Session, San Antonio, Tex, May 10-14, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.**

■ TEXAS NEUROLOGICAL SOCIETY, San Antonio, Tex, May 12, 1978. Harold Skaggs, Jr, MD, Pres, 801 W 34th St, Austin, Tex 78705.

■ TEXAS OCCUPATIONAL MEDICAL ASSOCIATION, San Antonio, Tex, May 11, 1978. Joseph F Peters, Jr, MD, Pres, Box 1616, Cleburne, Tex 76031.

■ TEXAS OPHTHALMOLOGICAL ASSOCIATION, San Antonio, Tex, May 12, 1978. Rodolfo E Margo, MD, Pres, Mid-Valley Medical Arts Building, Weslaco, Tex 78596.

■ TEXAS ORTHOPAEDIC ASSOCIATION, San Antonio, Tex, May 13, 1978. David P Green, MD, Prog Chmn, Division of Orthopaedic Surgery, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio, Tex 78284.

■ TEXAS OTOLARYNGOLOGICAL ASSOCIATION, San Antonio, Tex, May 12, 1978. Bernard L Yollick, MD, Vice-Pres, 5925 Forest Lane, Dallas 75230.

■ TEXAS PHYSICAL MEDICINE & REHABILITATION SOCIETY, San Antonio, Tex, May 12, 1978. Kenneth B Washburn, MD, Sec, 7703 Floyd Curl Dr, San Antonio, Tex 78284.

■ TEXAS RHEUMATISM ASSOCIATION, San Antonio, Tex, May 13, 1978. Alfred Miller, MD, Pres, 906 Oak Hills Medical Bldg, San Antonio, Tex 78229.

■ TEXAS SOCIETY OF ATHLETIC TEAM PHYSICIANS, San Antonio, Tex, May 12, 1978. C David Campbell, MD, Prog Chmn, 205 S 15th St, Corsicana, Tex 75110.

■ TEXAS SOCIETY OF COLON AND RECTAL SURGEONS, San Antonio, Tex, May 13, 1978. Raul Ramos, MD, Sec-Treas, 311 Camden, San Antonio, Tex 78215.

■ TEXAS SOCIETY OF PLASTIC SURGEONS, San Antonio, Tex, May 12, 1978. Robert W Wood, Jr, MD, Vice-Pres, 1213 Hermann Dr, Suite 885, Houston 77030.

JUNE

AMERICAN CANCER SOCIETY, INC, Seattle, Jun 29-Jul 1, 1978. 777 Third Ave, New York 10017.

AMERICAN DIABETES ASSOCIATION, Boston, Jun 11-13, 1978. JL Dugan, Jr, Exec Vice-Pres, 600 Fifth Ave, New York 10020.

AMERICAN MEDICAL ASSOCIATION, Annual Convention, St Louis, Jun 17-22, 1978. 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Louis, Jun 14-18, 1978. Ms L Loesel, Exec Dir, 1740 Broadway, New York 10019.

GEORGIA LUNG ASSOCIATION, Sea Island, Ga, Jun 14-18, 1978. Flay W Sellers, Managing Dir, 1383 Spring St, NW, Atlanta 30309.

ROCKY MOUNTAIN NEUROSURGICAL SOCIETY, INC, Colorado Springs, Colo, Jun 11-14, 1978. Harry Starr, MD, 3260 Fannin St, Beaumont, Tex 77701.

JULY

AMERICAN ACADEMY OF FAMILY PHYSICIANS, NEW MEXICO CHAPTER, Mescalero, NM, Jul 17-20, 1978. Box 456, Sunland Park, NM 88063.

AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE, Ann Arbor, Mich, Jul 10-15, 1978. Box 222, Morton Grove, Ill 60053.

INTERNATIONAL ACADEMY OF PHYSICIANS AND SURGEONS, Kyoto, Japan, Jul 2-7, 1978. Alfred Soffer, MD, Exec Dir, 911 Busse Highway, Park Ridge, Ill 60068.

ROYAL SOCIETY OF MEDICINE, London, Jul 23-28, 1978. Conference Office, 43 Charles St, Mayfair, London W1X 7PG, England.

AUGUST

INTERNATIONAL SOCIETY FOR EXPERIMENTAL HEMATOLOGY, Chicago, Aug 27-31, 1978. Walter Fried, MD, Division of Hematology/Oncology, Michael Reese Hospital and Medical Center, 29th & Ellis Ave, Chicago 60616.

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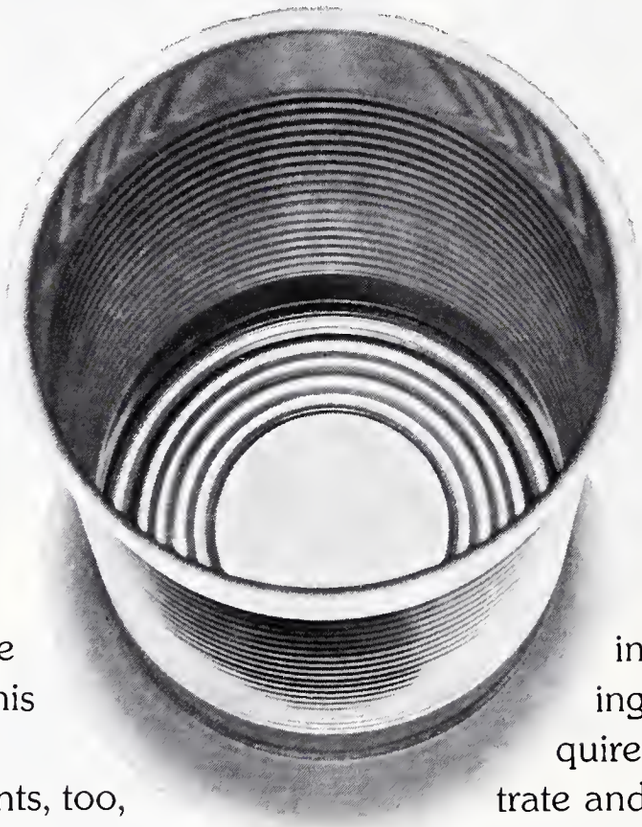

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CONTINUING EDUCATION COURSES

EDITOR'S NOTE: Continuing education courses are listed in each issue. Information about courses should be submitted in writing six weeks before publication; for example, information for the June issue (published June 1) is needed by April 15.

APRIL

Adolescent's Medical Care

Title: Fifth Annual Symposium on Sports Medicine
Sponsor: UT Health Science Center at San Antonio
Location of Course: Joe C. Thompson Conference Center, Austin
Date: April 1-2, 1978
Duration: Continuous; 2 days; 4-6 hours instruction per day; Saturday-Sunday; 10 total course hours
Fee: Physicians, $75
Designed For: General practitioners; Specialists in Adolescents' Medical Care
Enrollment: Minimum, 50; Maximum, 300
Credit: Category 1, AMA Physician's Recognition Award; 10 hours
Teaching Methods: Audiovisual materials, enrollee observes procedure, programmed instruction (self-teaching device), open question, panel, patient demonstration, television
Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Cardiovascular Disease

Title: Cardiac Rehabilitation Following Infarction
Sponsor: Continuing Education Division, UT Medical Branch, Galveston
Location of Course: Galvez Hotel/Motel, 21st & Seawall, Galveston
Date: April 6-8, 1978
Duration: Continuous; 2½ days; 8 hours instruction per day; Thursday-Saturday; 8 am-5 pm; 17 total course hours
Fee: $100
Designed For: General practitioners; Specialists in Otology, Family Medicine; Nurses
Enrollment: Minimum, 60; Maximum, 150
Credit: AAFP Prescribed; Category 1, AMA Physician's Recogition Award; 17 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, patient demonstration, seminar, live clinic
Contact: NeKee McNulty, Assistant to the Director, Continuing Education Division, John Sealy Hospital, Eighth Floor, UT Medical Branch, Galveston 77550

Title: Tenth Annual International Biomaterials Symposium
Sponsors: Southwest Research Institute, San Antonio; UT Health Science Center at San Antonio
Location of Course: Hilton Palacio Del Rio, 200 S Alamo, San Antonio
Date: April 28-May 2, 1978
Duration: Continuous; 4 days; Saturday-Tuesday; 15 total course hours
Fee: To be announced
Designed For: Specialists in Cardiovascular Disease, Orthopedic Surgery, Plastic Surgery
Credit: Category 1, AMA Physician's Recognition Award; 15 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: C. William Hall, MD, Society for Biomaterials, PO Drawer 28510, San Antonio 78284

Dermatology

Title: Dermatology for Primary Care Physicians
Sponsor: Division of Dermatology, UT Health Science Center at Dallas
Location of Course: UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas
Date: April 14-15, 1978
Duration: Continuous; 2 days; Friday-Saturday
Fee: $110
Designed For: Specialists in Dermatology
Credit: Category 1, AMA Physician's Recognition Award
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Emergency Care

Cancelled: Electrical Hazards in Hospitals, UT Health Science Center at San Antonio, April 20-22, 1978

Hematology

Title: Clinical Hematology
Sponsor: UT Health Science Center at San Antonio
Location of Course: La Posada Inn, McAllen
Date: April 8-9, 1978
Duration: Continuous; 2 days; Saturday-Sunday; 10 total course hours
Fee: $100
Designed For: General practitioners
Enrollment: Minimum, 20; Maximum, 40
Credit: AAFP; Category 1, AMA Physician's Recognition Award; 10 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Internal Medicine

Title: Progress in Infectious Disease
Sponsor: Continuing Education Division, Department of Internal Medicine, UT Medical Branch, Galveston
Location of Course: Munich, Germany
Date: April 15-22, 1978
Duration: Continuous; 5 days; 5 hours instruction per day; Monday-Friday; 25 total course hours
Fee: $150
Designed For: General practitioners; Specialists in Internal Medicine
Enrollment: Minimum, 60; Maximum, 100
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 25 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: NeKee McNulty, Assistant to the Director, Continuing Education Division, John Sealy Hospital, Eighth Floor, UT Medical Branch, Galveston 77550

Neurology

Title: Sixth Neuromuscular Disease Symposium
Sponsors: Departments of Neurology and Physical Medicine, Baylor College of Medicine, Houston
Location of Course: Shamrock Hilton Hotel, Houston
Date: April 6-8, 1978
Fee: $150
Credit: Category 1, AMA Physician's Recognition Award; 18 hours
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Radiology & Radioisotopes

Title: Clinical Nuclear Imaging—1978
Sponsor: Department of Radiology, UT Health Science Center at Dallas
Location of Course: Fairmont Hotel, Ross & Akard, Dallas
Date: April 27-29, 1978
Duration: Continuous; 2½ days; Thursday-Saturday; 18 total course hours
Fee: $225
Designed For: Specialists in Radiology
Credit: Category 1, AMA Physician's Recognition Award; 18 hours
Teaching Methods: Audiovisual materials, clinical conference, lecture, open question, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Surgery

Title: Gastro-Intestinal Surgery—Controversies and Complications
Sponsor: Department of Surgery, UT Health Science Center at Dallas
Location of Course: UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas
Date: April 13-14, 1978
Duration: Continuous; 2 days; 7 hours instruction per day; Thursday-Friday; 14 total course hours
Designed For: Specialists in Surgery
Credit: Category 1, AMA Physician's Recognition Award; 14 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar
Contact: George J. Race, MD, PhD, Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

ANNUAL SESSION COURSES

EDITOR'S NOTE: The following courses are presented in conjunction with Texas Medical Association's Annual Session, May 11-14, 1978, in San Antonio. Each course is sponsored or co-sponsored by TMA. TMA members do not pay a registration fee for the Session; nonmember physicians will be charged $25. For information regarding these and other Annual Session courses, contact Mrs Dale Willimack, Director, Department of Annual Session, Texas Medical Association, 1801 N Lamar Blvd, Austin 78701.

Adolescents' Medical Care

Title: Conference on School Health
Location of Course: River Room 1, San Antonio Convention Center, 210 S Alamo
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 8 am-4 pm; 5 total course hours
Designed For: General practitioners; Specialists; School administrators; Nurses
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Aerospace Medicine

Title: Scientific Program, Flying Physicians Association, Texas Chapter; Texas Air-Medics Association
Sponsors: Flying Physicians Association, Texas Chapter; Texas Air-Medics Association
Location of Course: Room 36, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 9 am-4:15 pm; 5 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Allergy

Title: Section on Allergy
Location of Course: Fiesta Room 2, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-4:45 pm; 5 total course hours
Designed For: Specialists in Allergy
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Anesthesiology

Title: Scientific Program, Texas Society of Anesthesiologists
Sponsor: Texas Society of Anesthesiologists
Location of Course: Concepcion Room, La Mansion del Rio, 112 College St, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 9 am-4 pm; 5 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Arthritis & Rheumatism

Title: Symposium on Rheumatic Diseases with Focus on Back Pain
Sponsor: Texas Rheumatism Association
Location of Course: Mission Room, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; ½ day; Friday; 2-5:15 pm; 3 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Scientific Program, Texas Rheumatism Association
Sponsor: Texas Rhemuatism Association
Location of Course: Fiesta Room 8, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 8 am-5 pm; 6 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Cardiovascular Disease

Title: Basic Cardiopulmonary Resuscitation Training Program
Sponsor: American Heart Association, Texas Affiliate, Inc
Location of Course: Pasteur Hall, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978; Repeated May 12, 1978
Duration: Continuous; ½ day; Thursday, May 11, 1978, 1-5 pm; Friday, May 12, 1978, 8 am-12 pm; 4 total course hours
Fee: $40
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, enrollee performs procedure, programmed instruction (self-teaching device), lecture, open question, panel

Title: Symposium on Cardiovascular Diseases
Location of Course: Room 31, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 8:30 am-5 pm; 6 total course hours
Designed For: Specialists in Cardiovascular Disease
Credit: AAFP Elective; Category 1 AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Advanced Cardiac Life Support Provider Course
Sponsor: American Heart Association, Texas Affiliate, Inc
Location of Course: Pasteur Hall, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12-13, 1978
Duration: Continuous; 1½ days; Friday, 1-5 pm; Saturday 8 am-12 pm, 1-5 pm; 12 total course hours
Fee: $120
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 12 hours
Teaching Methods: Audiovisual materials, enrollee performs procedure, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Cardiac Arrhythmias
Sponsor: American Medical Association, Chicago
Location of Course: Fiesta Room 1, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 14, 1978
Duration: Continuous; ½ day; Sunday; 8 am-1 pm; 5 total course hours

Fee: AMA members, $55; Nonmembers, $70
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Chest Disease

Title: Postgraduate Course on Chronic Obstructive Lung Disease
Sponsor: American Medical Association, Chicago
Location of Course: La Reina Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 9 am-5 pm; 6 total course hours
Fee: AMA members, $60; Nonmembers, $75
Designed For: Specialists in Chest Disease
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Section on Diseases of the Chest
Sponsors: American College of Chest Physicians, Texas Chapter; Texas Thoracic Society
Location of Course: Rooms A,B; San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 10 am-2:45 pm; 4 total course hours
Designed For: Specialists in Chest Disease
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Dermatology

Title: Scientific Program, Texas Dermatological Society
Sponsor: Texas Dermatological Society
Location of Course: Room 25, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13-14, 1978
Duration: Continuous; 2 days; Saturday-Sunday; 9 am-12 pm; 6 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Office Dermatology
Sponsor: American Medical Association, Chicago
Location of Course: La Duquesa Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; ½ day; Saturday; 8 am-1 pm; 5 total course hours
Fee: AMA members, $50; Nonmembers, $65
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Electrocardiography

Title: Postgraduate Course on Basic Electrocardiography
Sponsor: American Medical Association, Chicago
Location of Course: La Vista Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 9 am-5 pm; 6 total course hours
Fee: AMA members, $60; Nonmembers, $75
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Emergency Care

Title: Symposium on Emergency Medical Services
Sponsors: American College of Emergency Physicians, Texas Chapter; American Trauma Society, Texas Division
Location of Course: Room 33, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 9 am-4 pm; 4 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course Emergency Surgical Management
Sponsor: American Medical Association, Chicago
Location of Course: La Duquesa Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; ½ day; Saturday; 2-5 pm; 3 total course hours
Fee: AMA members, $30; Nonmembers, $45
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours

Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Endocrinology

Title: Scientific Program, Texas Diabetes and Endocrine Association
Sponsor: Texas Diabetes and Endocrine Association
Location of Course: Room 33, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 8:15 am-4:30; 6 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Family Medicine

Title: Texas Academy of Family Physicians Seminar
Sponsor: Texas Academy of Family Physicians, Austin
Location of Course: Room 25, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 8 am-5 pm; 6 total course hours
Fee: $20
Designed For: General practitioners; Specialists
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Section on Family Practice
Location of Course: Room 25, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-5 pm; 5 total course hours
Designed For: General practitioners
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Forensic Medicine

Title: Medical Seminar Re Rape
Sponsor: Texas Rape Prevention and Control Project, Criminal Justice Division, Office of the Governor
Location of Course: Room 34, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; ½ day; Friday; 2-5 pm; 3 total course hours
Designed For: General practitioners; Specialists in Pathology, Obstetrics & Gynecology, Family Practice
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction, lecture, open question, panel

Gastroenterology

Title: Section on Digestive Diseases
Location of Course: Room 34, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 8:15 am-5 pm; 7 total course hours
Designed For: Specialists in Gastroenterology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 7 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

General Medicine

Title: Dialogue Program
Location of Course: Exhibit Hall, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11-13, 1978
Duration: Six 1-hour presentations; 6 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), open question

Geriatrics

Title: Symposium on Aging
Location of Course: Room 32, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; ½ day; Thursday; 8 am-12 pm; 4 total course hours
Designed For: General practitioners; Specialists in Geriatrics
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Internal Medicine

Title: Section on Internal Medicine
Location of Course: Fiesta Room 3, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-5 pm; 6 total course hours

Designed For: Specialists in Internal Medicine
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Recent Advances in Drug Therapy
Sponsor: American Medical Association, Chicago
Location of Course: Corte Real Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 9 am-4 pm; 5 total course hours
Fee: AMA members, $50; Nonmembers, $65
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Metabolism

Title: Postgraduate Course on Acid Base, Fluid and Electrolyte Balance
Sponsor: American Medical Association, Chicago
Location of Course: Fiesta Room 3; San Antonio Convention Center, 200 S Alamo, San Antonio
Date: May 14, 1978
Duration: Continuous; ½ day; Sunday; 8 am-1 pm; 5 total course hours
Fee: AMA members, $55; Nonmembers, $70
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Neurology

Title: Section on Neurology
Sponsor: Texas Neurological Society
Location of Course: Rooms A,B; San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11-12, 1978
Duration: Continuous; 1½ days; Thursday, 2:30-5 pm; Friday, 10 am-5 pm; 7 total course hours
Designed For: Specialists in Neurology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 7 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Neurosurgery

Title: Section on Neurological Surgery
Sponsor: Texas Association of Neurological Surgeons
Location of Course: Room 38, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12-13, 1978
Duration: Continuous; 1½ days; Friday, 10 am-5 pm; Saturday, 8:30 am-12 pm; 9 total course hours
Designed For: Specialists in Neurological Surgery
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 9 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Obstetrics & Gynecology

Title: Symposium on Maternal and Child Health
Location of Course: Room 32, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; ½ day; Thursday; 2-4:30 pm; 3 total course hours
Designed For: General practitioners; Specialists in Obstetrics & Gynecology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Section on Obstetrics & Gynecology
Location of Course: Fiesta Room 4, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 10 am-4:30 pm; 5 total course hours
Designed For: Specialists in Obstetrics & Gynecology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Occupational Medicine

Title: Section on Occupational Medicine
Sponsor: Texas Occupational Medical Association
Location of Course: Room 22, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-5 pm; 5 total course hours
Designed For: Specialists in Occupational Medicine
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Ophthalmology

Title: Section on Ophthalmology
Sponsor: Texas Ophthalmological Association
Location of Course: Room 31, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12-13, 1978
Duration: Continuous; 2 days; Friday, 8:30 am-5 pm; Saturday, 8:30 am-4:30 pm; 12 total course hours
Designed For: Specialists in Ophthalmology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 12 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Orthopedic Surgery

Title: Scientific Program, Texas Orthopaedic Association
Sponsor: Texas Orthopaedic Association
Location of Course: River Room 1, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 8 am-5 pm; 6 total course hours
Designed For: General practitioners; Specialists in Orthopedic Surgery
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Otolaryngology

Title: Section on Otolaryngology
Sponsor: Texas Otolaryngological Association
Location of Course: Fiesta Room 1, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12-13, 1978
Duration: Continuous; 2 days; Friday, 8:30 am-5 pm; Saturday, 9 am-4:30 pm; 11 total course hours
Designed For: Specialists in Otolaryngology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 11 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Pathology

Title: Section on Pathology
Sponsor: Texas Society of Pathologists, Inc
Location of Course: Fiesta Room 5, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 8:15 am-4:30 pm; 6 total course hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Pediatrics

Title: Symposium on Developmental Disabilities
Sponsor: Texas Consortium for Developmental Disabilities, Texas Tech Research and Training Center in Mental Retardation
Location of Course: Lister, Galen Halls; San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 8 am-4:30 pm; 7 total course hours
Designed For: General practitioners; Specialists in Family Practice, Pediatrics, Neurology, Psychiatry
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 7 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Section on Pediatrics
Sponsor: American Pediatrics Society, Texas Chapter
Location of Course: Fiesta Room 6, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 10 am-3:10 pm; 2 total course hours
Designed For: Specialists in Pediatrics
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 2 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Physical Medicine & Rehabilitation

Title: Section on Physical Medicine & Rehabilitation
Sponsor: Texas Physical Medicine & Rehabilitation Society
Location of Course: Fiesta Room 4, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 8:15 am-4 pm; 5 total course hours
Designed For: Specialists in Physical Medicine & Rehabilitation
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Plastic Surgery

Title: Section on Plastic, Reconstructive, and Maxillofacial Surgery
Sponsor: Texas Society of Plastic Surgeons
Location of Course: Fiesta Room 7, San Antonio Convention Center, 210 S Alamo, San Antonio

Date: May 12-13, 1978
Duration: Continuous; 1½ days; Friday, 10 am-5 pm; Saturday, 10 am-12 pm; 7 total course hours
Designed For: Specialists in Plastic Surgery
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 7 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Proctology

Title: Section on Colon and Rectal Surgery
Sponsor: Texas Society of Colon and Rectal Surgeons
Location of Course: Fiesta Room 3, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; ½ day; Saturday; 8:15 am-12:30 pm; 3 total course hours
Designed For: Specialists in Proctology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Psychiatry

Title: Section on Psychiatry
Sponsor: American Psychiatric Association, Texas District Branch
Location of Course: Room 33, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 10 am-4:20 pm; 5 total course hours
Designed For: Specialists in Psychiatry
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Public Health & Preventive Medicine

Title: Section on Public Health
Sponsor: Conference of City and County Health Officers
Location of Course: Room 32, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-5 pm; 5 total course hours
Designed For: Specialists in Public Health
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Fungal Infections for the Texas Practitioner
Sponsor: American Medical Association, Chicago
Location of Course: Fiesta Room 2, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 14, 1978
Duration: Continuous; ½ day; Sunday; 8 am-1 pm; 5 total course hours
Fee: AMA members, $55; Nonmembers, $70
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Radiology & Radioisotopes

Title: Section on Radiology
Location of Course: Fiesta Room 8, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 9:30 am-4:30 pm; 5 total course hours
Designed For: Specialists in Radiology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Chest Roentgenograms
Sponsor: American Medical Association, Chicago
Location of Course: Galen Hall, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; ½ day; Saturday; 9 am-12 pm; 3 total course hours
Fee: AMA members, $30; Nonmenbers, $45
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Surgery

Title: Scientific Program, International College of Surgeons, Texas State Surgical Division
Sponsor: International College of Surgeons, Texas State Surgical Division
Location of Course: Room 38, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; ½ day; Thursday; 2-5 pm; 3 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

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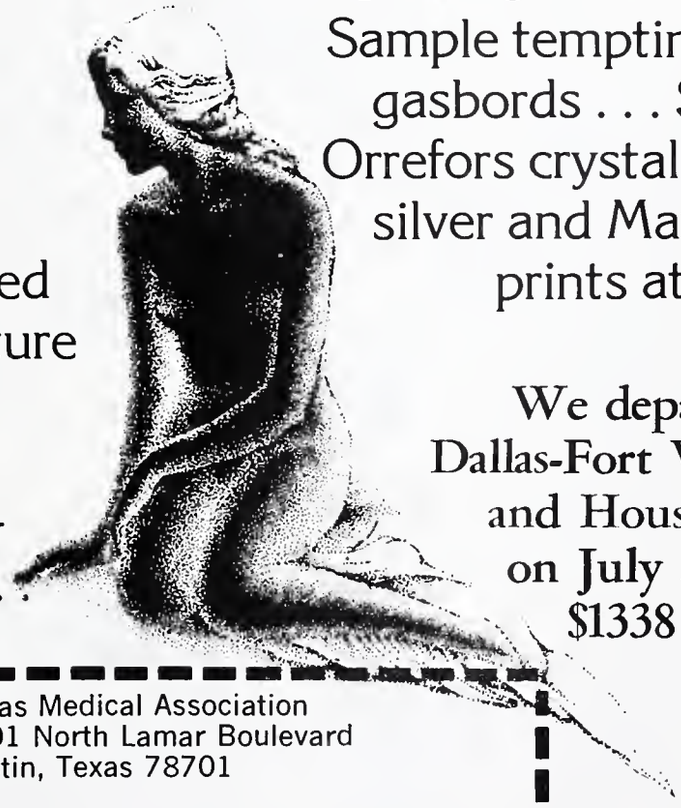

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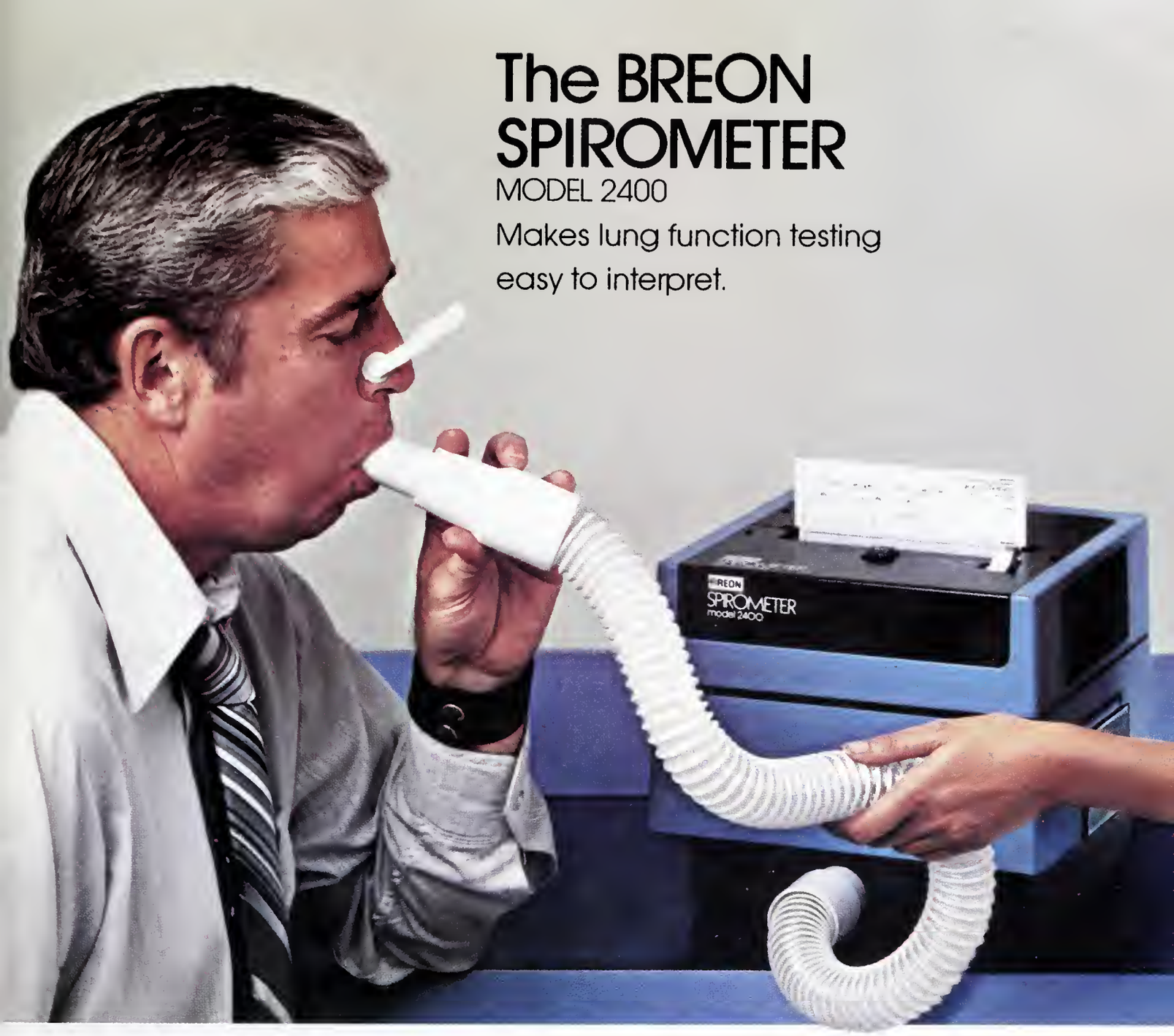

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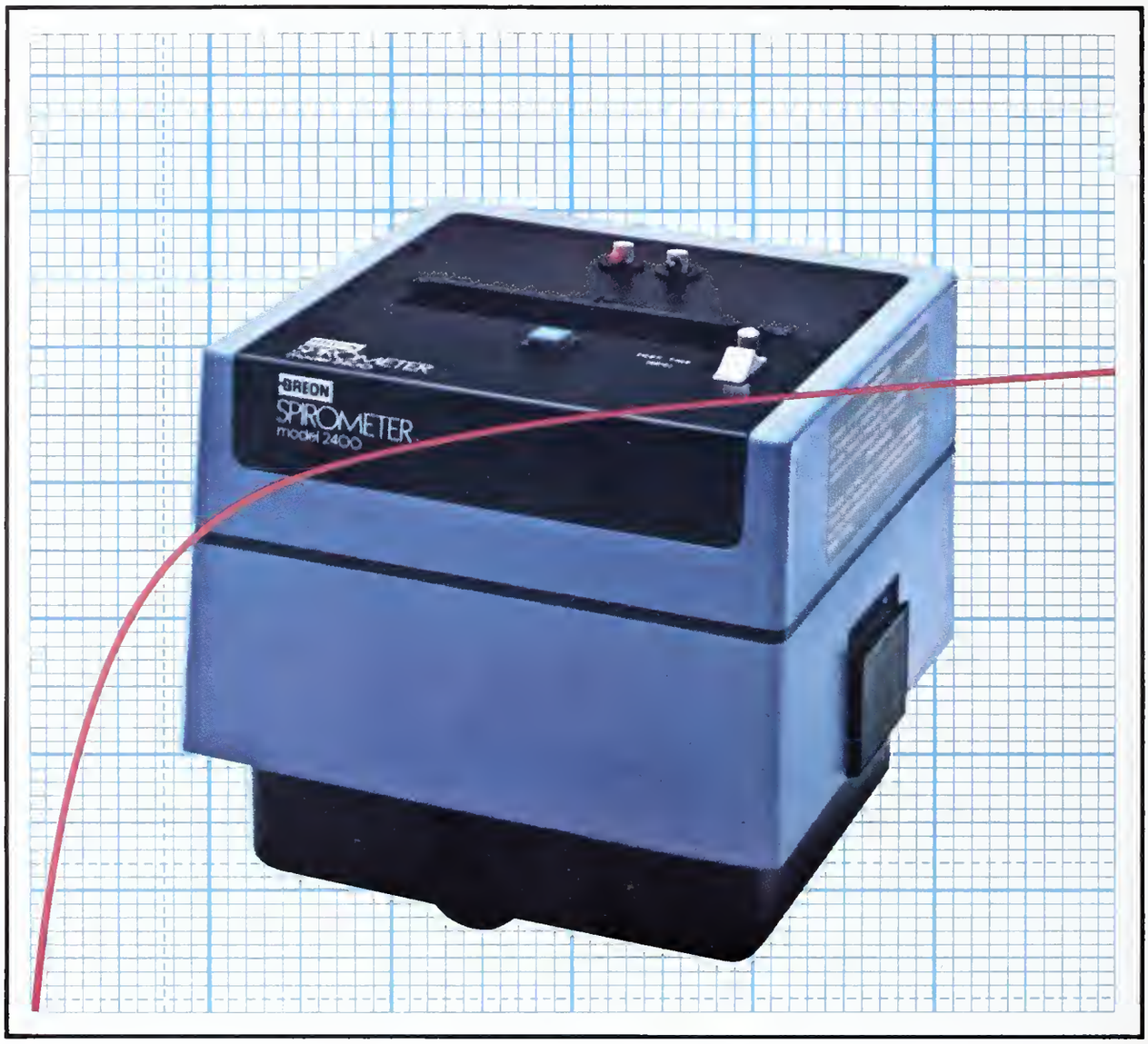

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Variable differences among older persons and their subjective health

Richard M. Campbell, PhD

Old age tends to be a more individualistic and complex life stage than generally has been accepted. Old age is more dynamic than its social stereotypes of all old people in poor health and general decline. On the contrary, a majority of those more than 60 years of age rate themselves with good to excellent health.

Specific sociologic variables which serve as loads or powers to good health and autonomy are related to responses to the statement, "My life is fulfilled . . . ," which is considered a sign of resignation to the end of life. Among persons of low health and income, 41.7% rate their life as fulfilled, but only 26.7% of those with high income and health rate their life as fulfilled. Living alone is more of a load for women than men, whereas living with others is a load for men. Excellent health is a load for men. Presumably men are able to be productive but are forced into retirement. Renting a home is a load for women presumably due to the insecurity of the loss of the male provider. Renting a home is a power for men. Presumably men are free from maintenance and repair problems. Poor health is more of a load for women, and low income is more of a load for men. The ratio between load and power, a dynamic relationship, is shown as a margin of ability to cope with later life.

The longer that men or women live, the more varied are their life experiences. Later lives are less susceptible to gross generalization than are the earlier years, yet the tendency to generalize about older persons has been commonplace. In planning for them, discussions about their needs are done as if all older persons are alike. Geriatrics, for example, may be a much more complex specialty than pediatrics. These variables in experience and their relation to the quality of later life and to subjective health have been studied by means of questionnaires administered in the gerontologic setting.[1] The study data are compiled from 625 usable questionnaires administered in senior citizen centers, senior citizen apartments, and through churches and the general community in 25 selected cities throughout the country.

The general profile of respondents was of women in their 70s with a college education, Protestant, first of professional and then of business occupation, with $12,000 or less in annual financial resources. They tend to live with a spouse, own their home, have frequent social contacts, and have lived in the community ten years or more. They use their time for reading, television, employment, volunteer work, and hobbies in that order of frequency and have a philosophy of life expressed in sociocultural, active, and self-directed terms.

The population for this study was sought to balance the weight of gerontologic research in institutionalized subjects who represent only 5% of those 65 and over. The conclusions of this earlier research have been based on a small and selected segment of the older population and have been responsible for the generation of stereotypes and stigmas.

Variables that Govern Health in Old Age

Although a statistical association between old age and death is easily demonstrated, the incidence of death is variable at every age. Chronologic age in itself does not govern health in old age, and aging is not confined to chronologic old age as, for example, in progeria.

Support

A substantial variable is the presence of a supportive community to those in later life.

There are indications that love is significant in the early health of an infant, but love and caring also are important at every age.

Subjective Health

Older persons' ratings of their own health as excellent, good, fair, or poor (their perception of their health status) is a significant variable in studies of gerontologic populations.[1,2] Lars Tornstam developed four interacting criteria of health including objective health status, subjective health status, aspiration levels of health, and attitudes of general satisfaction including self-worth, social value, and degree of isolation.[2] He stated the most influential factor in determining subjective health is the aspiration level for health. A low aspiration level and low objective health might be reflected in a subjective rating of good, whereas a high aspiration level and low objective health might cause the subject to assess health as poor.

A rating of excellent in the subjective assessment of health undergoes a pronounced decline in the 25 through 34 age group, and a further decline through middle age to the 60s (Fig 1). The rating levels during the 70s and declines again during the 80s and later. In later life 15% to 23% still view their health as excellent. Including those who rated themselves in good health from the 60s and older, 55% to 75% of those in later life rate themselves in good to excellent health.

The subjective rating of persons in their 80s is, as a group, the lowest. However, within the group, only 45% see themselves in fair to poor health. The rating of fair health increases with age as the rating of excellent health declines, and the two cross at about age 60. The rating of poor health is claimed in different studies up to about 6% of respondents.

In contrast with the stereotype that older people have poor health, data show that the majority are physically mobile and independent. According to the Post-White House Conference on Aging Report, 81% of older persons "get along on their own," and 14% have no chronic conditions, diseases, or impairments.[3] The Louis Harris survey showed that although 51% of the public believe that poor health is a problem

1. Responses to "My life is fulfilled" by age group 70-79, related to health and income status and contrasted with all respondents.

Variable	Women, %	Men, %	All in 70s, %	All Respondents, %	Income $12,000, %	Income 0-$4,000, %
Health:						
Excellent	34.6	50.0	41.7	36.2	26.7	—
Fair-Poor	61.1	44.4	49.1	51.1	—	41.7
Income:						
$12,000+	45.5	21.7	29.4	31.9	—	—
0-$4,000	50.9	57.1	51.7	50.4	—	—
Total	152	78	230	625	34	58

of aging, only 21% of older people found health to be a personal problem.

In a study done in Guilford County, NC, using 469 subjects 65 and older, 30% rated their health as good, 42%, fair, and 28%, poor.[4]

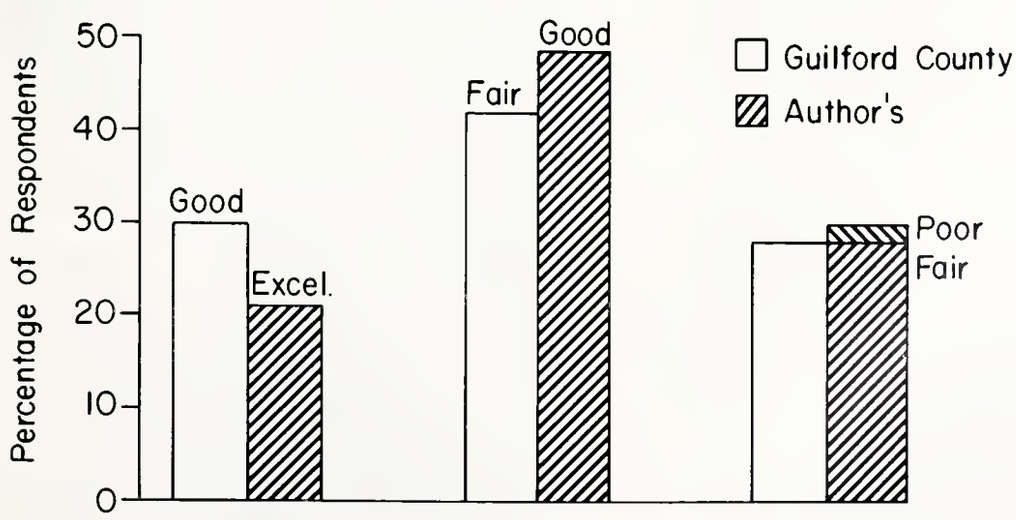
The Guilford study used only three ratings, good, fair, and poor, whereas the author's study included a rating of excellent. The population in the author's study began at age 60 and in the Guilford study at 65. The women-men ratio was 69% women, 31% men in the author's study, and 63% women, 37% men in the Guilford study. In both studies, the greatest number of respondents were independent, owned homes, and lived with spouse. In Fig 2, the results of the Guilford study are compared with the author's results, with adjustment made for the difference between a three- and four-point scale. Both reflect a normal curve.

Although 82% of the respondents in the Guilford study said they had something wrong with their health, 71.4% reported they were able to go practically any place that they wanted to go, and only 3.8% stated they were usually confined to a bed or chair. No personal characteristic was of any significance in predicting poorer health as age increased, but social position and race were significant predictors in the subjective health ratings.

The Guilford study showed that more women than men reported that health states interfered with usual routines. Tornstam pointed out that women have lower aspiration levels than men,[2] and Ethel Shanas wrote that women reported poor health more frequently than men.[5] In the author's study of 230 persons in their 70s, 25.6% women rated themselves in fair to poor health and 16.7% rated themselves in excellent health. More men, 24.7%, rated themselves in excellent health and 23.5% rated themselves in fair to poor health.

This discrepancy, 24.7% vs 16.7%, between men and women in a subjective rating of excellent health might be caused

2. Subjective health ratings: comparison between author's study and Guilford County, North Carolina study.



more by a filtering out effect rather than a sex difference. Men in fair to poor health might be less likely to live into their 70s than women in fair to poor health.

Continuity-Discontinuity Theory

The continuity theory in gerontology emphasizes that later life is the continuance of earlier life patterns, attitudes, and habits. The character of later life, then, is either stable or rigid, depending on the observer's perspective. In terms of growth and development, later life is at best a plateau stage. The stereotype of old age allows for change in only one direction, decremental losses. Geriatrics as a specialty deals with those losses, just as pediatrics is the specialty dealing with the growth and development of early life.

The discontinuity theory emphasizes the position that later life has real measures of incremental growth and development. Although the increments may not be directed toward the physical self, research has shown that certain physical losses can be reversed. The greatest potential for continued change, for growth and development, is in the mental, social, emotional, and interior self. The educational gerontologist, Howard McClusky, said, "They say that old dogs can't learn new tricks, but there are some tricks that only old dogs can learn."[6]

For the 1970 White House Conference on Aging, McClusky developed his theory of margin as a method to study the needs and conditions of later life. The margin is the ratio between load and power. Load is defined as any self or social demands that are needed to maintain a minimal level of autonomy, and power is defined as any resource that a person can use to cope with load. Power is the numerator and load is the denominator in the ratio, so that excess power gives a whole number condition, and excess load gives a fractional or marginal condition.

Essentially, the theory of margin offers a way to view later life dynamically. The adjustments of later life are the dynamic adjustments between power and load. If later life increases certain loads, then other loads must be decreased or certain powers must be increased. If, in later life certain powers decrease, then certain loads must be decreased, or other powers must be increased. Physicians are used to dealing with this kind of dynamic ratio.

The universally accepted load factors for later life are poor health and low income. In the author's study, one-fourth of all respondents, 32% of those in their 70s and 44% of those in their 80s, reported annual financial resources of 0-$4,000 (Fig 3). Twenty-five percent of all respondents, 28% of those in their 70s and 44% of those in their 80s, reported fair to poor health.

Life Fulfillment

One question in a series sought a response to the statement, "My life is fulfilled," and contrasted the answers with those in response to "I feel a personal need to fulfill my life." A positive response to the latter question is interpreted as a power, on the basis that motivation and energy toward goal-seeking is continuing.

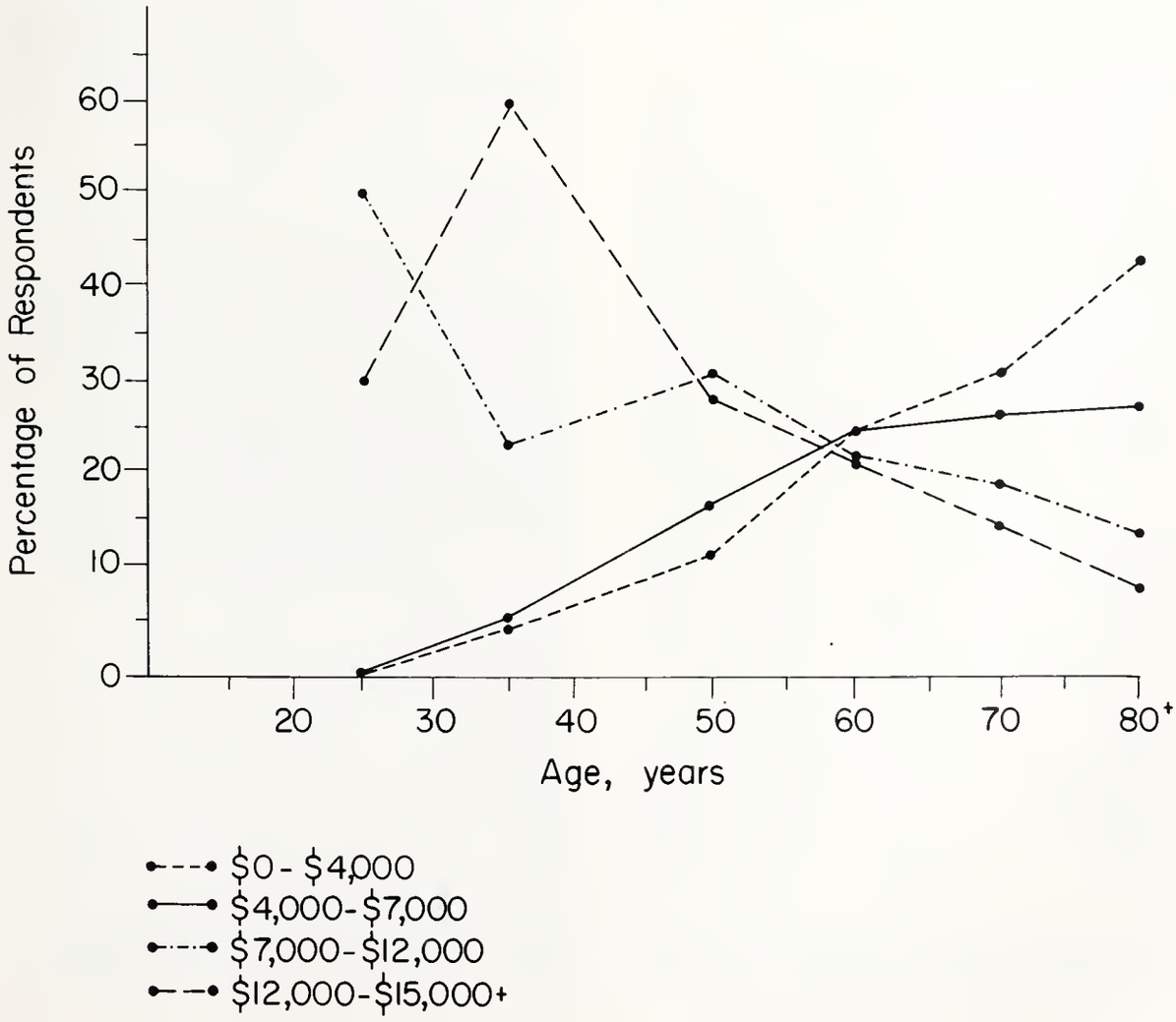
A positive response to "My life is fulfilled" is interpreted as a load because of the sense of life completion and the end of goal seeking. The relationship between the responses to these two questions is related to the financial and health variables (Fig 1). Among those of low health and income, 41.7% agreed that their lives were fulfill-

ed. Only 26.7% with high health and income agreed that their lives were fulfilled. This reinforces the assumption that low income and inability to cope financially impair autonomy, so low income represents a load reference, especially among the men respondents in their 70s. In contrast, the health variable seems to be more significant for women in their 70s. Generally, men are concerned about money and women about health.

Men in their 70s have an opposite response to the health variable than women. The load is for those in excellent health. The reasons for this are not clear, but may reflect their life-long image of themselves as working and productive. The men in excellent health have the power to continue being productive, but they are forced out of work by social constraints. This may add a load factor in the form of guilt, anger, or frustration. A man in his 70s in fair to poor health, however, is absolved of this conflict by reason of health.

Other sociologic variables may be related to the load being fulfilled (Fig 4). Gen-

3. Annual financial resources by age group (data from survey questionnaires).



4. Agreement of respondents ages 70-79 to "Being fulfilled" by demographic variables.

Variable	Women, %	Men, %	All in 70s, %
Education:			
1-8th grade	43.8	50.0	45.8
9-12th grade	47.2	55.6	50.0
College	53.8	28.6	46.8
Post-college	38.1	37.9	38.0
Living Arrangements:			
Alone	48.4	40.0	47.2
Spouse	44.7	45.3	45.1
With others	44.4	100.0	56.3
Mobility:			
Same place since birth	42.1	50.0	45.2
10+ years since move	43.0	33.3	29.7
5-10 years since move	64.3	37.5	54.5
Recent move	55.6	57.1	56.3
Housing:			
Own home	39.1	37.7	38.5
Rent home	67.7	25.0	42.9
Rent apartment	51.4	40.0	48.0
Another's home	50.0	100.0	66.7
Other*	71.4	100.0	73.3
Health:			
Excellent	34.6	50.0	41.7
Good	48.5	33.3	43.1
Fair-Poor	61.1	44.4	49.1
Finances:			
0-$4,000	50.9	57.1	51.7
$4,000-$7,000	38.7	50.0	43.6
$7,000-$12,000	40.0	42.1	41.0
$12,000+	45.5	21.7	29.4
Total	152	78	230

*Other: Mainly senior citizen complexes and apartments

erally, persons in their 70s experience as load factors, education to the high school years, living with others, recently moving, living in another's home—especially a senior citizen complex—and low health and low income.

Differences occur again between men and women in their 70s. College education appears to be more of a load for women, whereas ninth to 12th grade education is for men. An indicator of load for women is living alone, and for men it is living with others. Renting a home is a load indicator for women, whereas it is reflected as the least load indicator for men. Men appear not to want to live in another person's home. Men appear to find it most difficult to cope with recent moves, whereas women appear to have coping problems five to ten years after they have moved.

Applications

The subjective health variable, along with the income variable, might be used by the physician to apply research results in social gerontology in practice. Physicians may better understand the different assessments that patients make about their own lives and health with an understanding of the interaction among variables. Generalizations about elderly patients are as risky as at any stage of life. Prognosis and treatment cannot be summarized, any more than can every patient with a headache be told to take two aspirins and go to bed. The dynamic, variable differences among geriatric patients need to be fully appreciated. Time should be taken with every patient to determine subjective assessment of health and aspirations for health and objective health status. If the physician attributes a patient's problem to old age, the physician is seriously short-changing the patient. To

say that older persons are senile is specious generalization. Although 5% of the older population is institutionalized, about 1% demonstrate organic senility.

For this kind of thinking in geriatric practice, a parallel may be found in the *Bible*. Abraham said, Yahweh, if there be ten in the town, then save it. If there be five, if there be one, that one is an important person.

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Symptomatic lumbar scoliosis with degenerative changes in the elderly

Bernard S. Epstein, MD; Joseph A. Epstein, MD; Malcolm D. Jones, MD

Lumbar scoliosis with degenerative changes in the elderly presents with variable apophyseal joint spondyloarthrosis, laminar hypertrophy, and marginal osteophytosis most prominent at the scoliotic apex. Resultant lumbar stenosis, alone or with ventral spurs and herniated discs, can produce disabling pain in the low back and legs. It also can produce neurogenic claudication which can be relieved by appropriate decompressive surgery. Myelography is essential preoperatively. Whether this type of scoliosis is superimposed on adolescent thoracolumbar scoliosis or arises in later life remains an open question.

Although we often see lumbar scoliosis with degenerative changes when elderly patients have abdominal roentgenograms made for other reasons, the association of such scoliosis with radicular and low back pain has been largely overlooked. How many such patients have been relegated to the scrap heap of "severe degenerative arthritis" is conjectural. While many undoubtedly are asymptomatic, accurate diagnosis is essential to identify those for whom appropriate decompressive surgery will provide relief. Inasmuch as the literature contained few references to this matter, we have correlated the clinical manifestations of symptomatic scoliosis in elderly people with findings on straight radiographic and myelographic examinations and the pathologic changes observed at operation. For brevity, the term "senescent lumbar scoliosis" might be applicable.

Material

This series includes four men and eight women from 40 to 83 years old with symptomatic lumbar scoliosis who had plain films of the spine and myelograms followed by operation. These included one 40-year-old woman who had had a spinal fusion at age 20 for thoracolumbar adolescent scoliosis. Four others were 47 to 58 years old, four were 67 and 68 years old, two were 78, and one was 83.

Ten others from 15 to 65 years of age had similar examinations for reasons unrelated to low back pain, mainly cervical spine complaints.

Clinical Aspects

The most common complaints were radicular and low back pain of variable intensity and frequency for about six months to more than five years. In five patients, pain had become unremitting and they were bed-ridden and regarded as hopeless. Palliative treatment for "severe arthritis" had been of no benefit. These patients included three women, ages 58, 67, and 78; a 66-year-old man; and an 83-year-old man.

Radicular pain was unilateral in eight and bilateral in four patients, most intense on the side of the scoliotic concavity. Only one had pain referred to the convex side, and later we found that the pain was caused by a classical herniated disc. Sensory and sphincteric changes were present in one patient. Diminished and sometimes absent reflexes were referrable to the L2-3-4 levels in inconstant patterns. Four patients had positive reactions to the straight leg-raising test. Unilateral claudication on the side of the scoliotic concavity was seen in three patients and bilateral claudication occurred in four others. Such pain occurred while walking or standing, and was relieved by sitting or lying down or by curling up in the prone position. Weakness and numbness were at times dominating symptoms.

Three main groups of patients were identified. The largest was the asymptomatic set. The second included five patients who had localized symptoms referable to a single level. The third consisted of six patients with diffuse spinal changes in which stenosis was prominent. Both the second and third groups included severely incapacitated individuals.

Plain Film Radiographic Changes

Symptomatic Group

Of the 12 patients, four had straight thoracic spines; in four only the lower thoracic vertebrae were seen and were normally aligned; and in one a compensatory thoracic curve was present. Thoracic spine films were not available for three. Scoliosis angles varied from 15° to 60°. In five patients, angles were between 25° and 50°. The lumbar lordosis was average in seven patients, straightened in two, and mildly exaggerated in three. The angles were greatest in those patients who had lumbar stenosis.

In those with severe curves, the intervertebral discs were narrowed to bony apposition at the apex of the scoliosis, and were widened on the convex side. The pedicles were rotated out of view on the con-

1.a. Thoracolumbar spine of a 39-year-old woman with asymptomatic adolescent scoliosis.

1.b. Pantopaque myelogram performed because of possibility of an upper thoracic cord tumor. The cord is drawn towards the apex of the scoliosis. The inner wall of the column is thin, the outer wall presents as a thicker lateral gutter within which elongated nerve roots are visible. The cord does not appear to be affected.

cave side, more so with prominent curves. Hypertrophic spondylotic changes affecting the vertebral bodies were variable, and were most obvious on the lateral aspects of those segments forming the apex of the curve on its concave side. Even in older patients, osteophytic response anterolaterally was mild or moderate except for the oldest three patients, in whom it was fairly prominent. Buttress formations in the form of heavy spurs at the cephalad and caudad ends of the curve appeared on the convex side above and the concave side below the scoliosis. Anterolateral fusion of vertebral bodies appeared when discal thinning indicated bony apposition. Spondylolisthesis with an intact neural arch was present in four patients. Translateral shifts of vertebral bodies were more evident with increasing scoliosis. Hypertrophied laminae and apophyseal joint arthropathy intruded into the spinal canal, particularly at the apex of the curve. Laminar and apophyseal joint fusion occurred when bony contact had taken place. The intervertebral foramina were narrowed at these sites. Hypertrophy of the inferior articular facets was greater than that of the superior facets. Both contributed to foraminal stenosis. Such

2.a. Asymptomatic lumbar scoliosis with spondylolisthesis and degenerative changes in a 65-year-old woman with cervical myelopathy but no significant low back or radicular pain. Anteroposterior myelogram reveals multiple dorsal indentations apparently insufficient to cause cauda equina compression. The scoliosis angle is 30°. The midvertebral centra are shifted laterally. Spur formation is limited to the hollow of the curve.

2.b. Lateral myelogram shows the dorsal indentations better than the anteroposterior myelogram. Degenerative spondylolisthesis of L-4 on L-5 with intact neural arches and diffuse discal narrowing are present.

changes are difficult to demonstrate, but tomographic examinations were helpful.

Asymptomatic Group

In these individuals, the plain films appeared to be much the same as those of the symptomatic group in adult patients. In younger individuals the degenerative discal and apophyseal joint changes were absent. Identification of symptomatic and asymptomatic individuals could not be made on the basis of straight radiographic examination.

Myelographic and Operative Correlations

Asymptomatic Group

In three patients between 15 and 20 years old with asymptomatic thoracolumbar scoliosis, the lumbar canal was large and followed the curves without intrusions. The cord in the thoracolumbar region was drawn into the hollow of the curve so that the Pantopaque column on that side was narrowed but was widened on the convex side (Fig 1). The nerve roots also were drawn into the scoliotic concavity. The same pattern was followed by the caudal sac in those patients who came to operation. In the older patients wide canals were present in four. In three there were multiple asymptomatic indentations into the lumbar sac incidental to spondylotic spurring (Fig 2).

Stenotic Group

Five women and two men had stenotic lumbar canals with partial to complete block at two or more levels. The Pantopaque column was narrowed as seen frontally, and tapered as seen on lateral views (Fig 3). In four cases, significant ridges were present at three levels, and in two cases at two levels. One man had a sharply localized unilateral stenosis at the L2-3 level (Fig 4).

At operation it was found that stenosis was caused by hypertrophy of the laminae and apophyseal joints, most marked in the scoliotic apex. The laminae on the concave side were particularly prone to thickening, reaching well over 1 cm in thickness in several patients (Fig 5). Overlapping and shingling of the articular facets was common. Laminar fusion was present in three patients, and fusion of the laminae and apophyseal joints was found in two others. The inferior articular facet often was more involved than the superior facet, but both contributed to foraminal stenosis. Shortening of the pedicles, with pedicular thickening and spurring, further compromised the intervertebral foramina. The yellow ligament was thickened in those in whom it still was present, but was obliterated when laminar enlargement reached significant levels.

In two patients, heavy spur formation was present in the anterior aspect of the canal at discal levels, usually at L2-3 and L3-4. These further compromised the spinal canal, augmenting the effects of laminar and apophyseal joint intrusions, particularly in the scoliotic concavity.

Surgery consisted of appropriate laminectomies, foraminotomies, unroofing of the lateral recesses of affected vertebrae, and neurolysis to free nerve roots fixed in narrowed intervertebral foramina.

Lumbar Scoliosis with Discal Herniation and Other Localized Intrusions

Three patients had localized myelographic defects characteristic of discal herniation,

much the same as seen in normal lumbar spines. At operation, offending discs were removed. In two patients, this was at the L-4 interspace on the concave side of the curve, and in one at L-5 interspace on the convex side.

In two patients, myelographic examination revealed dorsal and ventral indentations as well as lateral defects, producing a ring-like deformity at a single level, both at L-4. One patient, an 83-year-old man, had a thick anterior bar with hypertrophy of the posterior articulations, producing a sharply localized block. The other, a 67-year-old woman, had obstruction at L-4 caused by ventral spurs and heavily thickened laminae. In both, the canal above and below these lesions was quite wide.

At operation, adequate decompressive surgery resulted in a satisfactory response. It was found that spontaneous fusion had occurred from L-2 to L-4 in both cases.

Comment

The cause of lumbar scoliosis with spondyloarthrotic changes in elderly individuals is a moot question. While superimposition of adolescent scoliosis is likely, the possibility that it can arise anew in adult and later life cannot be excluded. We know of no study which reports observations for 20 to 30 years of the same individuals in whom the early scoliotic pattern progresses to a symptomatic stage. The absence of compensatory thoracic curves in some of our patients and the prevalence of localized lumbar degenerative changes suggest to us that preexistent adolescent scoliosis is not necessarily a precursor. Also, we are not aware of reports stressing this condition.

Previous reports stress that neurologic effects are most likely to occur in the thoracic region, and emphasize the importance of associated kyphosis and changes occurring in the apex of the curve. That neurologic consequences with thoracic scoliosis is infrequent is indicated by Ruhlin and Albert.[8] They noted that but seven out of 2,000 scoliotic individuals had spinal cord involvement, three with congenital curvatures, three with rickets, one with neurofibromatosis, and one with achondroplasia. Intraspinal lesions with thoracic kyphosis causing spinal cord compression include extradural fat pads at the site of the gibbus,

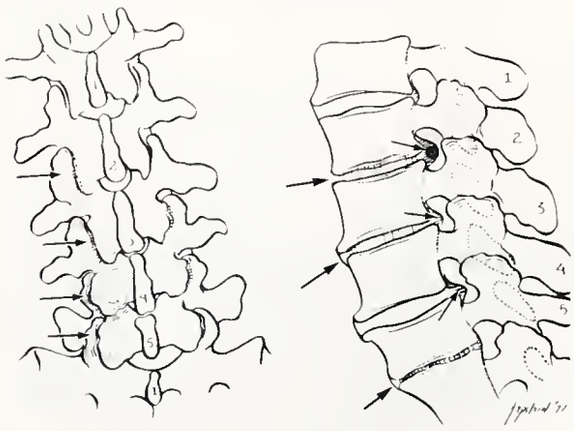
3.a. This 67-year-old woman had severe intermittent low back pain, radiating down both legs, and neurogenic claudication. She had become bedridden because of intractable pain. Anteroposterior roentgenogram reveals 20° lumbar scoliosis convex to the left. The upper two lumbar vertebrae are approximated on the right side.

3.b. Lateral examination shows a moderately straightened lumbar lordosis, narrowing of the intervertebral discs and prominent arthrotic apophyseal joints.

3.c. Anteroposterior myelogram reveals multiple transverse defects at the L2-3 and L3-4 levels and a lateral indentation on the left side of the L4-5 disc.

3.d. Lateral myelogram reveals tapered blocks at L2-3 and L3-4, and an anterior spur defect at L4-5.

3.e. Operative diagram. Spinal stenosis was caused by multiple ventral spurs and heavy overgrowth of the articular facets at the scoliotic apex. Fusion had occurred at the right facets between L2-3-4-5 as well as at the anterior aspect of these vertebrae. A bulging disc was removed from the L4-5 interspace.

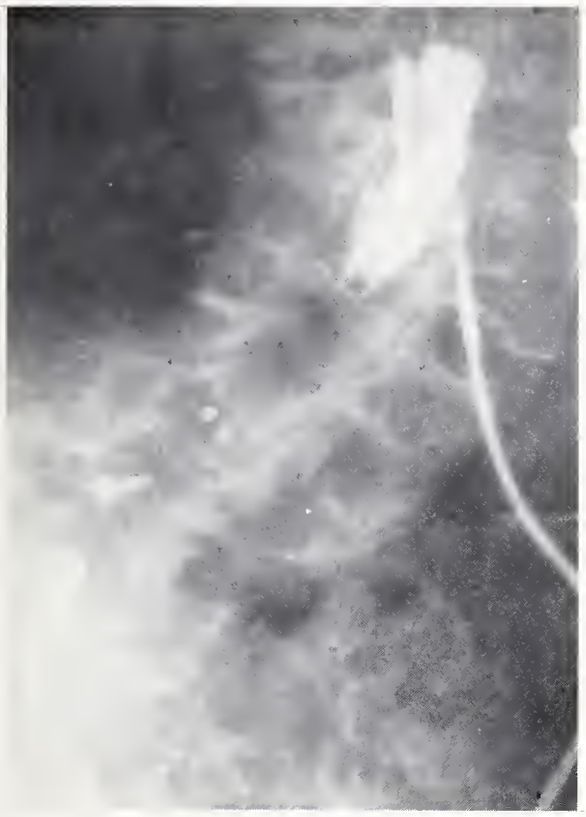


4.a. This 51-year-old man had intermittent pain increased by exertion down the lateral aspect of his left lower limb. The scoliosis angle is 20°. The L2-3 disc is narrowed and shifted at the apex of the curve. The left pedicle of L-2 is prominent.

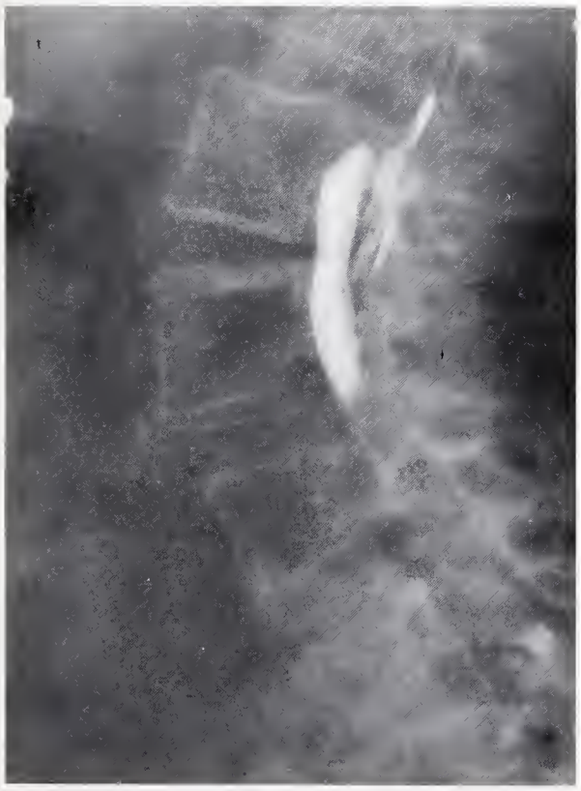
4.b. Anteroposterior myelogram reveals a wide canal with a defect localized to the left side of the L2-3 articulation. At operation the laminae of L2-3 were thickened, imbricated, and fused. The inferior facet of L-2 was particularly prominent, and the pedicle was short and heavy. The foramen was constricted. The nerve root was shaggy because of fine and coarse adhesions.

5.a. This 59-year-old woman had low back pain radiating down her left leg for more than 13 years. The pain had become completely incapacitating. A diagnosis of neurofibromatosis had been made because of a mass lesion in the posterior mediastinum at the level of T-8. Her thoracic spine is straight.

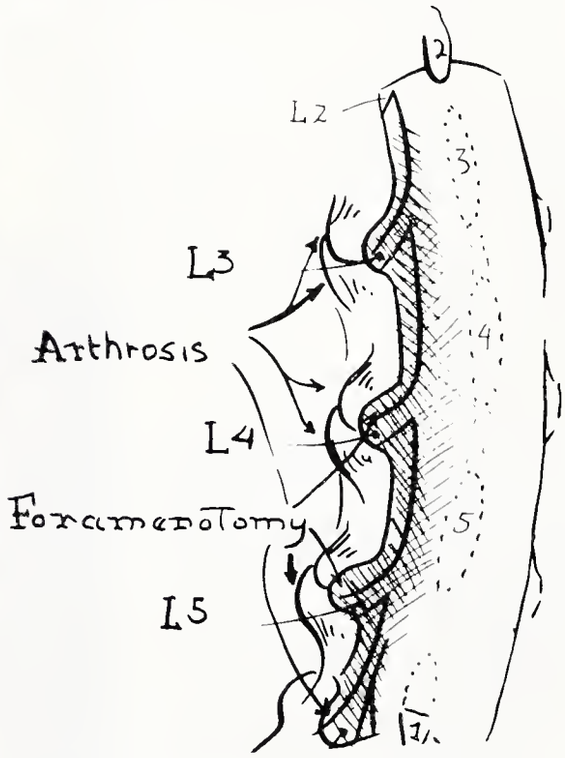
5.b. The upper sacrum and right iliac bone has a honeycomb pattern caused by neurofibromatosis. There is rotary right lumbar scoliosis with an angle of 60°. Only moderate spondylotic overgrowth is present, most concentrated in the scoliotic concavity. Myelography after instillation of 3 ml of Pantopaque at the L1-2 level shows a severe block at L2-3 with droplets trickling down into the caudal sac.



5.c. Lateral myelogram reveals a stenotic canal with a tapered block at L2-3.



5.d. Operative drawing. Prominent arthrosis and foraminal stenosis and heavy perineural and epidural scarring (hatched areas) were present in the hollow of the curve. The lateral angles from L-3 and L-5 were severely constricted because of shortening of the pedicles and massive hypertrophy of the right neural arch. Laminectomy of L3, 4, and 5 and removal of the upper half of S-1 as well as wide foraminal unroofing was performed. Osteophytes were excised. The left nerve roots were red and tied down by scar tissue. A soft disc was removed from the L4-5 interspace. (Reprinted, with permission, from Epstein JA, Epstein BS, Lavine LS: Surgical treatment of nerve root compression by scoliosis of the lumbar spine. J Neurosurgery 41:449-454, 1976.)



a tight dura, arachnoid cysts, and dermoids.[2-5,7,9]

James noted that neurologic complications in congenital scoliosis, such as those caused by absence of a vertebral body or fusion of adjacent vertebrae, tended to appear when accompanying kyphosis exceeded 90°.[3] Neurologic complications have followed fixation procedures such as fusion of Harrington rod instrumentation.[5]

Surgical efforts to relieve cord compression mainly reflect thoracic lesions. Roaf noted that pressure of the pedicles exerted on the concave side of the cord required their removal if paralysis did not improve after a short period of recumbency.[6] We know of no other reports of relief of cauda equina and lumbar nerve root compression other than our four cases.[1] Two of these are included in the present series. Kyphosis was not present in any case mentioned in this article.

In the present series more than half the patients had symptoms referable to lumbar stenosis. This was most severe in the concavity of the scoliosis, but nevertheless, bilateral symptoms were common. Compression of the thecal sac and traction on the nerve roots within the canal as well as perineural inflammatory changes within the intervertebral foramina, fixing the roots within those spaces, was regarded as the situation requiring surgical correction Equally important are those patients who had more sharply localized lesions such as herniated discs, or circumferential or unilateral bony prominences causing nerve root or thecal sac compression, or both.

Plain film roentgenographic changes are quite similar in symptomatic and asymptomatic patients with "senescent lumbar scoliosis." Degenerative spondylotic changes are visible in both, but myelograms showed that asymptomatic patients had either wide canals or intrusions which were not productive of compressive changes. This raises the question as to whether preexistent spinal stenosis might not be a factor in the development of the multiple lesions which produce radicular and cauda equina compression. Myelographic examination is essential in evaluating the spinal canal, and we regard it as a mandatory preoperative investigation.

Results of decompressive surgery were regarded as excellent in those patients with lesions localized to a single level. In five of the patients with more diffuse stenotic lesions, the results were equally satisfying, in one some relief was obtained, and in one the outcome was disappointing.

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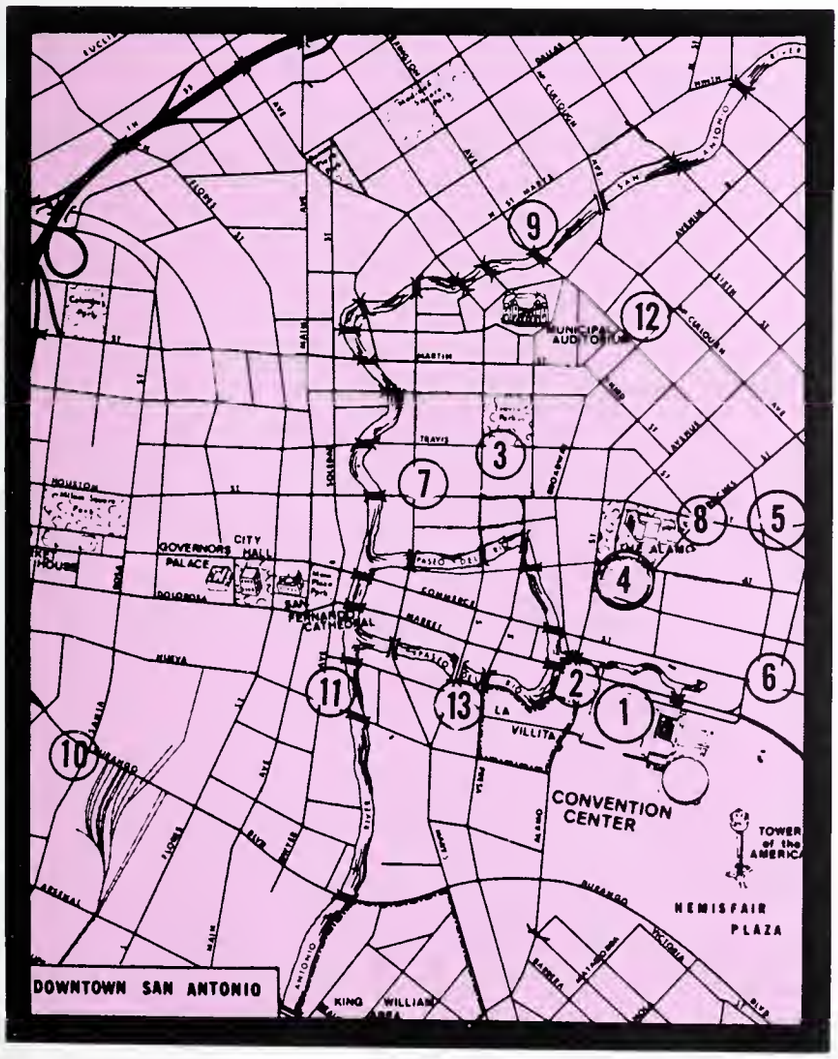

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Practical aspects of mobilizing the elderly patient following hip fracture

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The fracture of a hip in an elderly person is generally considered catastrophic. Sometimes, the fractured hip is merely an accident in an otherwise healthy, active, aged individual. At other times, it may be the next step in a pattern of confusion, symptoms of paralysis agitans, and general physical deterioration. Whatever the cause, it is frequently viewed by patients, their families, and their physicians as a disastrous event with at least the potential for a nonreversible impact on the patient's life style.

Postoperatively, there is difficulty differentiating the patient who was alert and active before the hip fracture from the long-term senile patient. With the trauma of surgery, postoperative dehydration, and absence of environmental stimuli, all older patients may have a similar appearance. These older people must compete for professional attention with younger and more robust patients. If the patient is alert enough to grasp the situation, he may give up hope and develop a severe depression. The patient's family may react with guilt, hostility, and anxiety when considering their own future responsibilities.

It is not a hopeful picture; it is a complex set of medical, physical and psychological problems. If we are to make progress in successfully caring for the elderly patient with a hip fracture, we must use the specialized, multidisciplinary approach provided only by the rehabilitation team.

Description of Representative Program

A retrospective study was performed at Rosewood General Hospital in Houston, Texas. We studied 95 consecutive patients with hip fracture whose surgery was performed at the hospital Jan 1, 1973, through July 1, 1976. Achievements and complications were measured. A description of the program is included so that the means whereby these results were achieved may be examined.

The study was carried out in a general hospital which includes a rehabilitation nursing unit supervised by a hospital-based physiatrist. A significant geriatric census exists because of six surrounding nursing homes.

When one of the nursing home residents is suspected of having a hip fracture, the patient is brought to the emergency room for roentgenographic diagnosis. The orthopedist usually provides surgical correction within 24 to 48 hours from the time of the fracture. The physical therapy service begins having the patient spend time on the tilt table 24 to 48 hours after surgery. In the study, 73 patients were transferred to the rehabilitation service on the eighth (average) postoperative day. Twenty-two patients were not transferred to the rehabilitation section, either because they were too senile to respond or for reasons not relevant to this study.

The average length of stay for the patient not transferred to rehabilitation was 14.5 days. The average length of stay for the patient transferred to the rehabilitation unit (from initial admission) was 37.2 days.

Once the patient is transferred to the rehabilitation section, the intravenous fluids are discontinued and the patient is initiated into a rehabilitation nursing program consisting of mobilization in a wheelchair for 30 minutes, three times a day or as tolerated by pulse response. This is increased 30 minutes three times daily per day, so that usually by the fourth or fifth day, the patient is spending most of his time up and out of bed. When this is achiev-

ed, the patient is then dressed in street clothes for his daily activities. The patients are taken to a dining area, away from their rooms, where they eat in groups.

The following precautions are taken for patients who have had hip surgery: If surgery included internal fixation, the patients do not bear weight for four to six months afterward. If a replacement prosthesis was inserted, hip flexion usually is limited to 45° for up to three weeks postoperatively. A neurochair is used to mobilize these patients because it can maintain hip flexion at any angle from full extension to 90° flexion (Fig 1). Alert, agile patients are allowed to ambulate, with full weight-bearing, off the tilt table within the first week following surgery (Fig 2). Knee spreaders prevent adduction of the thighs while the patient is up in the wheelchair (Fig 3).

A physical therapy program usually is started within the first few days after the patient is transferred to the rehabilitation section, depending on how rapidly the patient is able to be mobilized from the bed. The patients are started on Hirschberg's stand-up, step-up program[2] within their own range of motion limitations. The program is graded, pulse is monitored, and exercises are designed to strengthen the antigravity leg muscles capable of weight bearing.

The exercise program is performed with the patient seated in a chair, the seat of which is elevated by a series of 2-inch "risers." The patient stands, using one or both legs as allowed. As the strength of the antigravity musculature improves, the number of risers is slowly reduced until the patient is able to stand, unassisted, from the chair

1. Neurochair maintains hip flexion at 45°.

2. Alert, agile patients are allowed to ambulate off the tilt table, with full weight bearing, within the first week after surgery.

seat without using his upper extremities except for balance. This is a simple exercise that can be performed even by confused patients. Resting, post-exercise, and two-minute recovery pulse rates are monitored as exercises progress.

The step-up portion of the exercises is performed by climbing 2-inch, 4-inch, and then 6-inch stairs when weight bearing on both legs is allowed. Strengthening, balance, and cardiopulmonary endurance are achieved.

Patients also are started on transfer training, general conditioning, strengthening the arms, and progressive ambulation as they are able to progress. Patients who cannot yet bear weight perform the stand-up program with a lift under the good leg to prevent weight-bearing on the injured side (Fig 4). Active range of motion exercises are initiated for the leg on the side of the broken hip as allowed by the type of surgery performed.

Each patient has an occupational therapy program which includes activities of daily living, an endurance program with arm strengthening exercises, and a diversional program with reality orientation.

Rehabilitation nursing supervises the gradual mobilization from bedrest, bowel and bladder supervision, and prevention and care of decubitus ulcers. A sheet showing each patient's weekly gains in therapy is distributed to all team members so that the gains can be utilized. The entire rehabilitation team provides an operant conditioning program rewarding appropriate behavior, such as attempts to be independent, with praise and attention, whereas complaints deemed to be attention-getting are frequently ignored.

3. Knee spreaders prevent adduction of the thighs while the patient sits in a wheelchair.

4. Patient does stand-up exercise with a lift (arrow) under the good leg to prevent weight bearing on the side recuperating from surgery.

The medical-social service section provides patient and family counseling, assists with equipment purchase and discharge planning, and holds group motivation sessions.

Results of Retrospective Study

During the 42-month retrospective study described, 95 consecutive patient charts were studied. Three of the patients were between the ages of 51-60; 9 were between 61 and 70; and 83 were older than 70 years. Forty-seven of the patients received endoprostheses, and 49 received internal fixation.

Medical complications were as follows: Five patients died during the hospitalization: one of pneumonia, one of acute myocardial infarction, one of metastatic carcinoma of the breast, one of cerebrovascular accident, and one of intractable pulmonary edema secondary to congestive heart failure. Four patients contracted pneumonia, and three survived. Thrombophlebitis developed in three patients. Two of these three patients suffered complications which made mobilization more difficult than usual; one had fractured the wrist as well as the hip on the same side, and another was hemiplegic. Three patients had decubitus ulcers, two located on the sacrum and one over the trochanter. Two of the latter three patients were confused and disoriented, and one of them required traction on the operated side to prevent hip flexion.

Of the 73 patients transferred to the rehabilitation section, 10 were transferring independently at the time of discharge; 25 were transferring with standby to minimal assistance, and 15 were ambulatory with their endoprostheses.

Complications

Thromboembolism is generally considered the most common serious complication of hip surgery.

With a comprehensive mobilization program provided by the rehabilitation team, and without benefit of anticoagulant drugs, the incidence of clinical signs of thrombophlebitis in our series was 3.2%. This compares favorably with the generally accepted figures of 20-30%,[5] and is lower than the incidence cited in studies where patients received various anticoagulants.[1,3,4]

Pneumonia usually develops before mobilization is fully achieved, but tends to respond to this program as do its precursors of increased bronchial secretions and temperature elevation.

Confusion and senile psychosis frequently may be caused by unfamiliar environment and the lack of environmental stimulation. These conditions may improve with the use of Mellaril, 10 mg four times daily, and slowly increasing the dosage as needed. Used in small doses, this medication does not sedate the patient, but appears to clear confused thinking, decrease hyperactivity, and combat moderate depression.

Decubitus ulcers are another potentially serious complication. Although none of the patients who underwent surgery at our hospital developed decubiti of the heel, this is a common site for such ulcers in hospitalized patients. Healing of these heel decubiti is very difficult, particularly when poor circulation and pedal edema are present. Treatment of the heel decubiti must be accompanied by control of the edema caused by congestive heart failure, poor nutrition, or inactivity. This is usually accomplished with the use of two-way stretch elastic

hose, elevation of the foot, diuretics, and high protein diets. We found that Stryker boots are most efficient in the prevention and treatment of heel decubiti, and are preferable to the small heel pad booties that are usually used.

Dehydration is a complication which, in its early stages, can result in confusion, weakness, and temperature elevation. The nursing team must be vigilant for patients with low intake and force fluids and semisolids on a regular schedule.

The final "complication" is seen in 100% of cases. This is weakness and debility. In the elderly, inactivity and bedrest secondary to hospitalization can result in rapidly deteriorating strength and endurance. Even simple activities, such as rolling over, and certainly those activities requiring considerably more strength, such as transferring from bed to wheelchair, become more difficult. Weakness of the quadriceps and general deconditioning may have, indeed, been the underlying cause of the original fall, resulting in the fractured hip. More than occasionally, when a patient is transferred to the rehabilitation service, a borderline case of Parkinson's disease is discovered which also may have been a precipitating factor in the trauma causing the fractured hip. When Parkinson's disease is suspected, a test course of Symmetrel (amantadine hydrochloride) is initiated. If the symptoms respond to this medication, then Sinemet (a mixture of levodopa and carbidopa) is substituted for long-term treatment.

For the patient to be independent in transfers or ambulation, or both, his arms and uninvolved leg must be strengthened not only to a normal level, but to a maximum level. This must be done to make up for the involved leg which may not be allowed to bear weight for four to six months. In this instance, there is a requirement for a strengthening and an endurance program which lends itself to easy monitoring, gradual progression, and maximum muscular resistance. The stand-up, step-up program of Hirschberg is recommended to meet these requirements.[2]

Conclusions

Considering the surgical procedure performed, the age of the patients, and the medical complications present, the mortality rate (5.3%) in this study attests that surgical correction of the geriatric hip fracture is not necessarily the high risk procedure that it is generally considered to be. The results can be attributed to the rehabilitation and mobilization program provided for these patients. We believe that these services can best be accomplished on a specialized rehabilitation nursing unit.

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Bowel problems that occur in aging

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Digestive complaints occur often in older patients because of physiologic changes in the gastrointestinal tract that occur with aging. Studies were made of the frequency of these complaints in two patient populations, and the incidence was found to increase continuously with age. A relationship has been suggested between diet, particularly fiber, and three common colon problems of aging—constipation, diverticulosis, and cancer.

Physiologic changes occur in the gastrointestinal tract of aged persons that lead indirectly (and directly) to gastrointestinal symptoms.[1-5] Impaired taste and smell and decrease of salivary secretions, as well as loss of teeth, result in anorexia, disinterest in food, perversions of taste, inadequate mastication from ill-fitting dentures, restriction of dietary intake to soft, high-carbohydrate foods, and inadequate bulk in the diet (Fig 1). Impaired secretion of stomach acid results in increased susceptibility to infections from bacteria in food, causing bacterial overgrowth in the small bowel, and diarrhea. Diminished secretion of digestive enzymes results in intolerance of fats and fatty foods.

Impaired absorption can lead to weight loss that may appear to be idiopathic. Impaired colon motility and diverticulosis of the colon result in constipation, diverticulitis, acquired megacolon, and even volvulus. Diminished anal sphincter tone and poor response to rectal distension results in constipation, fecal impaction, and fecal incontinence, as well as anal disease, such as fissures, ulcers, and hemorrhoids. Although the extent of each of these changes varies with the individual, the presence of some of them commonly causes gastrointestinal complaints.

Frequency of Gastrointestinal Problems

In an effort to assess the frequency of gastrointestinal complaints with age, we gave a questionnaire to 100 patients over the age of 60, who were randomly selected from our Family Medicine Clinic. The questionnaire, which was self-administered, contained 18 questions concerning gastrointestinal history and symptoms. The population consisted of 44 men and 56 women, 83 of them were white, and 71 were between the ages of 60 and 70.

Seventy-six percent of these patients had one to two stools a day, which is similar to the frequency observed in a normal population. Two percent had more than three stools a day, and 8% had two to four stools a week. A little less than half of them had problems with hemorrhoids, rectal pain, and itching. About one-fourth at one time or another had a disease of the stomach, intestines, or colon and one-fourth took laxatives and antacids frequently. Another 18% observed abdominal pain and discomfort. Seventeen percent had had polyps or growths of the colon, and 14% had experienced changes in bowel habits. Thirteen percent had had prior inflammation of the gall-bladder, liver, or pancreas, and 11% had noticed blood in the stool. Eight percent had poor appetite and soiling, and 7% had had problems in the past with nausea, vomiting, jaundice, or hepatitis. Obviously, gastrointestinal complaints are common with age (Fig 2).

We reviewed the records of 100 consecutive patients over 60 years of age with gastrointestinal complaints who had been referred by other physicians to one of our group. In this population were 39 men and 61 women; 95% of them were white. The ten most common final diagnoses of these

patients were, in order of frequency, spastic colon, cancer of the gastrointestinal tract, liver disease, gallstones, diverticulitis, hiatus hernia, colitis of various kinds, diarrhea, gastric ulcer, and colon polyps (Fig 3).

Aside from the phenomena of age that affect the bowel, certain dietary changes in

Physiologic Changes	Consequences
Impairment of taste and smell	Anorexia
Impairment of salivary secretions	Disinterest in food Perversions of taste
Loss of teeth	Ill-fitting dentures Inadequate mastication Restriction of intake to soft, high carbohydrate foods Inadequate bulk
Diminished secretion of stomach HCl	Increased susceptibility to bacterial food infections Diarrhea Bacterial overgrowth
Diminished secretions of digestive enzymes	Intolerance of fats and fatty foods
Impaired absorption of foodstuffs	Weight loss
Impaired colon motility Diverticulosis of the colon	Constipation Diverticulitis Acquired megacolon Volvulus
Diminished sphincter tone and diminished response to rectal distension	Constipation Fecal impactions Fecal incontinence Anal disease: fissures, ulcers, hemorrhoids

1. Consequences of physiologic changes of the digestive tract in age.

POPULATION (TOTAL=100)	
Sex	
Male	44
Female	56
Age	
60-70	71
71-80	22
> 80	7
Race	
White	83
Black	12
Spanish surname	5
Stool frequency	
1-2/day	76
>3/day	2
2-4/week	8
No response	14

QUESTIONNAIRE	
Hemorrhoids, pain or pruritus ani	43
Ever had disease of stomach, intestine, colon	28
Use laxatives or antacids frequently	28
Often have abdominal pain or discomfort	18
Ever had polyp or growth of colon-rectum	17
Noted change in bowel habit	14
Had inflammation of gallbladder, liver, or pancreas	13
Blood in stool	11
Poor appetite	8
Soiling	8
Nausea-vomiting	7
Jaundice, hepatitis, pancreatitis (past history)	7

2. Frequency of gastrointestinal complaints; responses to questionnaire.

POPULATION	
Sex	
Male	39
Female	61
Race	
White	95
Black	3
Spanish surname	2
Age	
> 60	100

TEN MOST COMMON DIAGNOSES	Women	Men	Totals
Spastic colon	15	5	20
Cancer of gastrointestinal tract:	10	8	18
Stomach	2	0	
Pancreas	1	1	
Colon	5	3	
Metastatic (primary unknown)	2	4	
Liver disease:			13
Ethyl alcohol	2	6	
Cryptogenic	2	3	
Gallstones	5	7	12
Diverticulitis	8	2	10
Hiatus hernia with or without stricture	9	3	12
Colitis:			9
Inflammatory bowel disease	3	2	
Antibiotic	1		
Ischemic		2	
Amebic		1	
Diarrhea:			6
Diabetic	2	1	
Vagotomy-gastric resection	3	0	
Gastric ulcer	3	2	5
Colon polyps	2	1	3

3. Final diagnoses in 100 consecutive patients referred for gastrointestinal complaints.

this country since World War II may contribute to an increased incidence of digestive disorders: an increased intake of highly refined carbohydrates, especially soft drinks and "junk" food, a decreased intake of milk and milk products, a decreased intake of fiber foods, and an increased intake of meat. (Fig 4 shows the dramatic increase in consumption of soft drinks during the past 125 years.[5])

Certain digestive disorders appear to be related to a deficiency of dietary fiber: constipation and diverticular disease and possibly cancer of the colon, as well as gallstones, hiatus hernia, and hemorrhoids. The effect of dietary fiber may be considered for specific bowel problems. Three common ones of aging are constipation, diverticular disease, and cancer.

Constipation

The amount of fiber in the diet correlates with stool size, and the time required for evacuation is related inversely to residue. The relief of constipation by restoring bulk to the diet has been known in medicine for years, especially through the use of cellulose, hemicellulose, and bran preparations. Thus, correction of fiber deficiency is a readily manageable aspect of the problem of chronic constipation.

Bowel problems occur in elderly persons who are disabled and confined to bed. Weakness and immobility lead to a feces-loaded rectum and eventually overflow diarrhea. Loss of appetite follows with more malnutrition and weakness. In addition, problems that arise from vascular brain damage and depression cause neglect of the call to stool, and a loaded rectum results, followed by overflow diarrhea. Large, hard stools cause fissures, and straining produces piles. Discomfort and pain re-

sults. Confusion and fear lead to more neglect of defecation. In the elderly patient who is confined to bed, correcting the problem of constipation and breaking these cycles significantly improves the patient's welfare.[6]

In one study, bran (15-25 gm/day) was used for bowel management in a nursing home population of 25 with an average age of 80 years.[7] In men, bran produced more actions and fewer constipated days, increased the size of stool, and lessened the need for laxatives. In women, stools increased in size, but the number of actions and constipated days were not affected. In this population, most of the men were ambulatory, whereas the women were bedridden.

Certain disadvantages of bran as a laxative for older persons were observed. For instance, if not mixed well, bran could be inhaled. Defecation patterns were irregular and personal hygiene problems arose, so the nursing staff did not like the results. The use of a laxative or a suppository controlled the time of defecation better and produced fewer nursing demands. Furthermore, leaking and soiling were a problem. Other disadvantages of feeding bran included decreased appetite, abdominal fullness, occasional diarrhea and distaste.[7]

Other sources of dietary fiber, however, are available. Dietary fiber consists of cellulose, lignins, and hemicellulose. As long ago as 1936, two biochemists at Washington University, Williams and Olmstead, fed a great many fiber materials to four medical students and measured their effects on stool weight and residue.[8] Aside from wheat bran, they fed alfalfa leaf meal, corn germ meal, carrots, cotton seed hulls, sugar beet pulp, canned peas, cabbage, agar-agar, and "cellu" flour. All these substances have moderate amounts of fiber and increase stool weight. They could be fed to improve bowel function (although one might argue about the palatability of some of them).

Cabbage and agar-agar, for instance, did produce an increase in stool weight almost as effective as wheat bran.

Diverticula

Diverticular disease, a bane in modern life, appears to be age-related and acquired. Manousos and associates at Oxford fed a glass of barium to people waiting in their clinic and took abdominal films six hours later. They found an incidence of diverticular disease increasing quite steadily from 18% at age 40, to 42% at age 80.[9]

We reviewed barium enema examinations in 82 patients from 100 referred patients over the age of 60 who had gastrointestinal complaints, and found a high incidence of diverticula: 43% of patients ages 60 to 69 and more than 50% of those over 70 had diverticula (Fig 5).

The striking difference in frequency of this disorder in western countries, in contrast to developing countries such as Africa and India, has often been reported.[10] The implication of this difference is that diet

4. Annual per capita consumption of soft drinks.

Year	Per Capita (8-oz containers)
1849	1.6
1889	9.9
1919	38.4
1969	344.4
1973	429.6

Data from 1973 sales survey of the soft drink industry, National Soft Drink Association, Washington, DC, 1973.[5]

may be responsible, particularly consumption of residue. Furthermore, in laboratory studies, diverticula developed routinely in rats[11] and rabbits[12] fed a low residue diet.

It is postulated that diverticula develop because the pressure gradient between the lumen of the colon and the surrounding peritoneal cavity is increased. Intraluminal colon pressures are higher in persons with diverticular disease and respond more vigorously to food or injections of neostigmine.[13] Furthermore, in patients who were given bran, 20 gm per day for five weeks, or methylcellulose tablets, the pressure of the colon was lowered.[14,15] What is more important, however, symptoms of diverticular disease improved with the consumption of bran or methylcellulose.[16]

Cancer of the Colon

Cancer of the colon appears to be an age-related disease, with a peak incidence between 60 and 70 years of age. In a large retrospective study, 85% of 453 patients were over 50 years of age at the time of development of colon cancer.[17] Cancer of the colon is one of the most common in our society and causes more than 50,000 deaths annually. Its incidence is greatest in the United States and Canada, and is low in Japan, Africa, and India.[18] Interestingly, the risk among Japanese immigrants to Hawaii and California after ten years or so rises to approximately that of the general population.[19] Such evidence suggests that an environmental factor, possibly diet, is important in the development of cancer of the colon.

5. Age and diverticulosis.

Age	Total No. Patients	Patients with Diverticula	%
Oxford Series[9]			
< 40	39	0	
40-59	27	5	19
60-79	24	7	29
> 80	19	8	42
UTMB Galveston Series			
60-69	37	16	43
70-79	36	21	58
> 80	7	4	57

The evidence for the importance of fiber in the diet in colon cancer, although indirect, rests on observations that a diet of highly refined carbohydrates, fat, and protein leaves a small residue and delays transit, which allows feces longer contact in the sigmoid and rectum, the area where more than 70% of cancers of the colon arise.[20,21] If a carcinogen were present, exposure of the left colon to it would be increased in persons consuming a low-residue diet.

Diet, even more than geography, influences fecal flora. For example, persons eating diets high in protein and fat have increased numbers of anaerobic bacteria in the stool, and anaerobic bacteria, by their action on bile salts, produce increased amounts of deoxycholic acid, a mild carcinogen.[22] Also, certain foods are converted to carcinogens by the action of anaerobic bacteria.[23]

Bile salts are absorbed by fiber residue and thus less are available for deconjugation by anaerobes. Addition of bran to the diet, up to 30 gm/day, was found after six to ten weeks to have decreased the proportion of deoxycholic acid in the bile salt pool and increased chenodeoxycholic acid.[24] (Chenodeoxycholic acid is the bile salt that is now being tested because of its ability to

dissolve gallstones.) These findings suggest to some that a low fiber diet may contribute to the increased incidence of cholesterol gallstones in the United States.

None of the evidence cited proves that low-fiber diets are the cause of colon cancer, but does raise the possibility that by improving dietary habits, particularly adding more fiber to the diet, the rising incidence of colon cancer might be reversed.

In the meantime, colon cancers should be routinely sought in patients over age 50 by screening stools for blood. Using the convenient Hemoccult test packet,[25] patients can make fecal smears for several days while eating a meat-free, increased roughage diet. These packets can be sent to the doctor's office for testing. Patients with positive tests will need further investigations with proctoscopy and x-ray studies. Blood-free stools imply a colon free of neoplasm. A more aggressive approach toward detection of colon cancer in the family doctor's office is the best hope at this time for improving colon cancer statistics.

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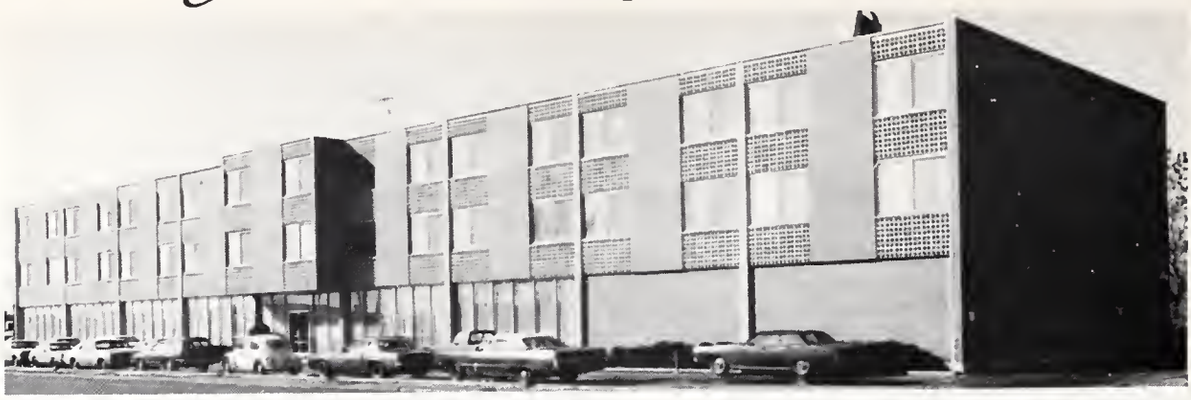

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Electrical injury in the physician's office: reduction of personal liability through preventive maintenance

John A. Stieber; Charles R. Crane, MD

Physician liability in the private office continues to expand with the increasing use of electrical and electronic devices for medical diagnosis and treatment. While training and maintenance procedures are being developed for hospitals, little attention has been focused on dangers in the physician's office. Preventive and corrective maintenance procedures can minimize misuse and equipment malfunction. It is imperative that any physician using electronic equipment realize the inherent dangers and take steps to minimize his liability and patient injury.

There has been a progressive increase in electrical and electronic equipment surrounding or attached to patients. An expanding electronic environment affects the patient and the medical practitioner in the hospital, the clinic, and the examination room.

Patients in the hospital and in the doctor's office could be harmed by the electrical devices that surround them. There is greater risk when the patient is grounded by monitoring equipment and his protective skin barrier is breached by electrodes that could carry a low level alternating current. Poorly designed electronic devices and improperly grounded electrical wall outlets and equipment increase the danger.

This article examines the impact of this environment on the practicing physician's office. It emphasizes potential injury and death to the patient, legal responsibilities in the form of product liability, and workable solutions to both problems.

An abundance of data verifies injury and death to hospitalized patients resulting from electrical shock. Most of these cases involve current leakage from improperly grounded equipment and electrical wall outlets,[1] faulty power cords, malfunctioning equipment, shorts, and ground loops.[2,3,4] Grounding often is not suitable when equipment and wall outlets are installed. Or, these problems may develop when inspections are lacking or unsatisfactory.

The literature does not adequately address potential hazards for the patient from electrical shock in the doctor's office. One explanation for this failure might be that the atomistic nature of private practice makes data collection very difficult. Another possibility is that physicians are just beginning to use sophisticated electronic equipment and have not yet experienced its associated problems. Regardless of the reasons, as the electronic environment in the doctor's office expands, there may be more patient injuries. Furthermore, the increased probabilities of physical harm translate into increased legal responsibilities for the physician.

Under the negligence theory of civil law, doctors always have been held accountable for errors that result in patient injury or death. The introduction of electronic devices expands the physician's liability since product liability statutes and court decisions from the recent consumer protection movement place him in an adversary position. Cases in which damages were obtained from doctors using defective equipment already are on record.[5,6]

Physicians have been held liable in four major areas: care in selection of equipment, misuse of the product, knowingly employing a defective machine, and improper inspection and maintenance.[7] Since the doctor is not an electronic technician or engineer, compliance with the law can be enhanced by procuring outside assistance for an ongoing preventive electronic maintenance program. With the right kind of program, one also can reduce the probability of injury to the patient.

A comprehensive preventive maintenance program should have three levels of

activity carried out on a regular basis: inspection, correction, and reinspection.

A regular basis might be a minimum of once every three months. This procedure should be initiated for all new and existing electronic devices. A new piece of equipment should not be used until inspected, corrected (if necessary), and reinspected.

The proper maintenance program depends on the requirements of the individual doctor, and no single maintenance plan applies to all private practice situations. However, with minor modifications, the following preventive maintenance format could be conducted once every three months by any physician who has electronic equipment in his office:

1. Monitor wall outlets for proper grounding.
2. Inspect for current leakage from equipment.
3. Check operation of equipment.
4. Verify proper grounding.
5. Examine electrical wires.
6. Inspect transducer wires.
7. Report hazardous conditions and correct them.
8. Recommend replacement of equipment when necessary.

Inspection and repair services can be rendered on a contract basis with a reputable electronic maintenance firm. This program would do little, if anything, to help in the doctor's responsibility for care in selection of equipment. Neither can a maintenance service correct all cases of misuse of the product.

If there are equipment problems between maintenance service visits, the physician should contact the firm immediately. It is surprising how many times serious accidents were preceded by unexpected minor electrical shocks which occurred intermittently for weeks or months.[1] No matter how small the electrical shocks are, there should be a thorough investigation of the possible cause and its effect on the patient.

Conclusion

Recent electronic innovations have introduced sophisticated monitoring and diagnostic equipment into the physician's office. Although technologies have contributed much to the overall delivery of health care systems in this country, they also have created new problems. For the patient, there is the added risk of physical harm or death from electrical shock. For the physician, there is expanded legal responsibility.

An ongoing preventive maintenance program can help ensure that the doctor is complying with the law, except as it relates to his care in the selection of equipment and misuse of the product. It also can reduce the probability of injury or death.

The Joint Commission for Accreditation of Hospitals recently has recommended safety measures to reduce electrical hazards in the hospital. These measures have provided a more secure legal environment for doctors administering hospital care.

There is no organization which has provided similar assistance to the physician in private practice. The doctor will have to develop his own safety measures.

The key words are a preventive maintenance program on a regular basis. A recent study concluded that regular maintenance is one of the most effective ways of combating electrical shock accidents in hospitals.[8]

A preventive maintenance program on a regular basis can reduce the probability of injury and death from electrical shock, provide a more secure legal environment for the physician in private practice, enhance compliance with existing laws, and minimize physician liability.

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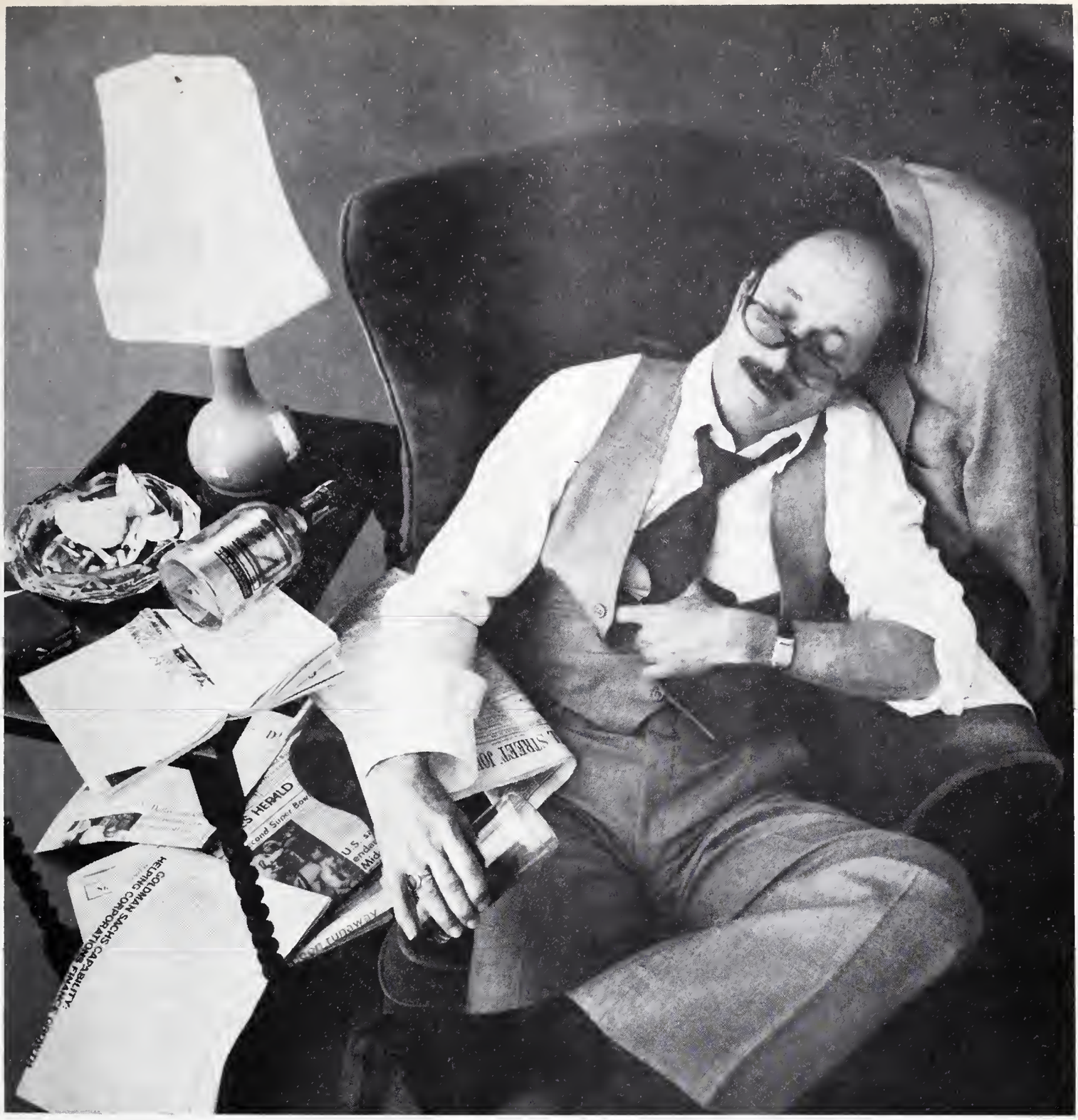

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Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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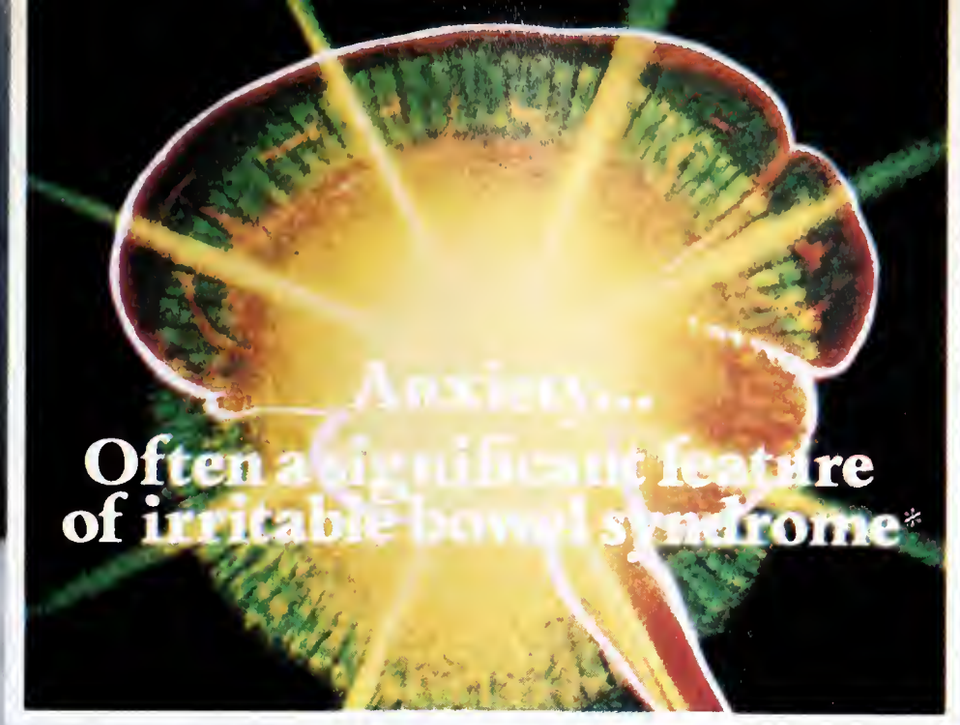

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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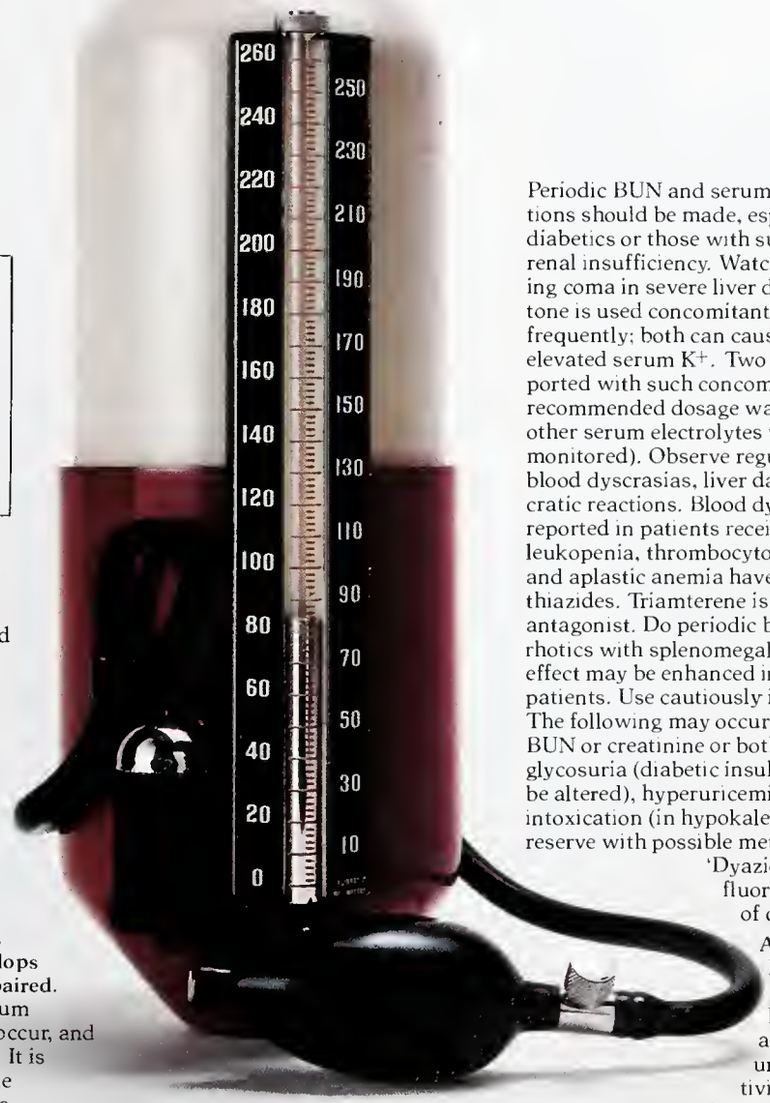

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* **Warning**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

FOR LONG-TERM CONTROL OF HYPERTENSION.* SERUM K^+ AND BUN SHOULD BE CHECKED PERIODICALLY. (SEE WARNINGS SECTION.)

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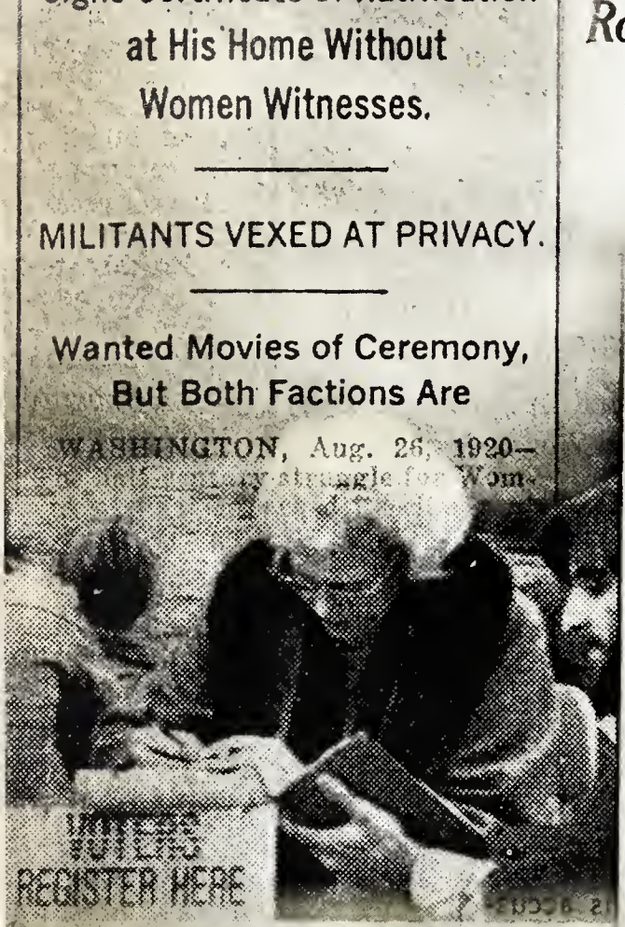


Social Security Bill Is Signed; Gives Pensions to Aged, Jobl

Roosevelt Approves Message Intended to Benefit 30,000 Persons When States Adopt Cooperating Laws–He Ca the Measure 'Cornerstone' of His Economic Program

WASHINGTON, Aug. 14, The Social Security Bill, prov a broad program of unemplo insurance and old age pen and counted upon to benefit 20,000,000 persons, became la day when it was signed by dent Roosevelt in the prese those chiefly responsible fo ting it through Congress.

Mr. Roosevelt called the me "the cornerstone in a stru which is being [illegible] me[illegible] complet[illegible]

SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution is Sent to House, Where Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today, 94 to 0, and sent to [illegible]

TRUMAN CLOSES TED NATIONS CONFEREN WITH PLEA TO TRANSLATE CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great Instrument of Peace,' Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing Ovation as Executive Pictures Peace Gain

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

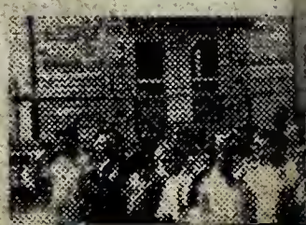
The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

"Oh, what a great day this can be in history!"

Just before the plenary session the President accompanied the [illegible]

UL SIGNE the Draf Ends Nov

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the Secretary of the Army that [illegible]



PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA

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Genitourinary tuberculosis in Texas

J. Daniel Johnson, MD; Hugh L. Wolff, MD; Perry W. Nadig, MD

Urinary tuberculosis continues to be a significant public health problem in Texas, especially in the urban and southern portions of the state. The current status of diagnosis and therapy for urinary tuberculosis is reviewed, and four demonstrative case histories are presented.

Known to the ancients, tuberculosis continues to be a health hazard of enormous proportion in the 20th century. More than 50% of the world's population carries the tubercle bacillus, and approximately 3 million people die of tuberculosis annually.[4] While the incidence of pulmonary tuberculosis has declined steadily in the past quarter century, the incidence of urinary tract involvement has remained at a fairly constant level; some observers believe this to be due to the lag time of urinary presentation after the pulmonary syndrome.

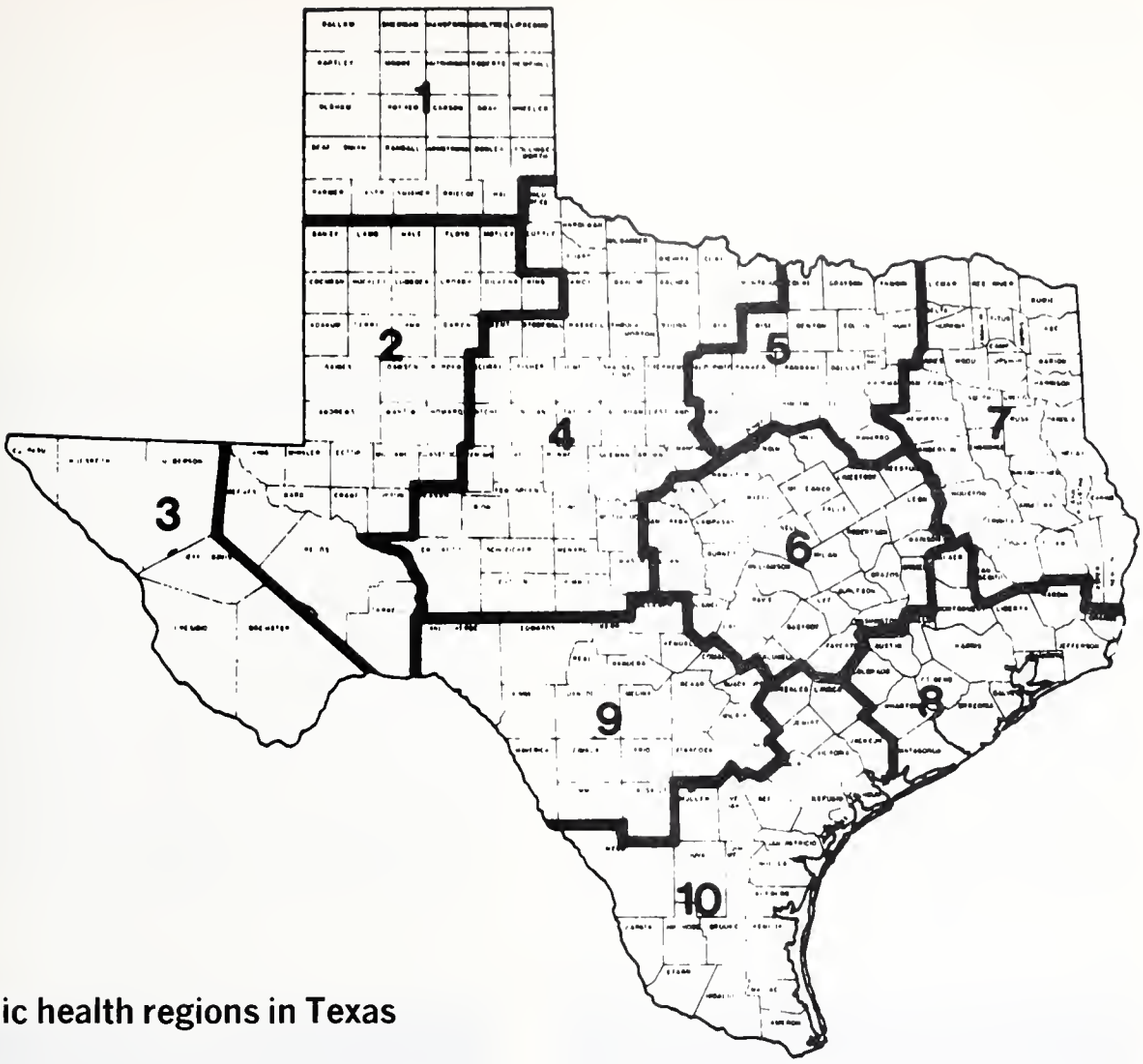
In Texas the incidence of pulmonary infections has dropped 18% since 1969 to a rate of less than 20 cases per 100,000 population.[19] Texas continues, however, to experience a significant number of cases of both pulmonary and genitourinary tuberculosis with more than 2,400 cases of pulmonary infections and nearly 50 cases of urinary tract tuberculosis reported in 1976.[2] As of September 1977, 33 patients with urinary tuberculosis have been reported and nearly one half of the cases occurred in the three public health regions of southern Texas (Fig 1). Outside south Texas, tuberculosis reports are concentrated in the metropolitan counties of Dallas, Tarrant, Travis, El Paso, and Lubbock.

History

The understanding of tuberculosis originated in 1882 with Koch's isolation of the acid-fast bacillus. The involvement of the urinary tract was well recognized at the turn of the century when the influential urologist Alberran declared, ". . . tuberculose rénale-néphréctome immédiate." Renal involvement was thought to be a unilateral disease initially, and it was hoped that early diagnosis and nephrectomy could be curative. Immediate nephrectomy was advocated even if the kidney appeared grossly normal at surgery since the masquerading tuberculous infection was surely present.

As diagnostic techniques improved and the diagnosis of urinary tuberculosis was made earlier, nephrectomies were done earlier, but there was no improvement in survival. Cibert in 1946 reviewed several large series of renal tuberculosis treated by immediate nephrectomy and found a 5-15% one-year mortality and a 30-40% five-year mortality.[9] All those who died succumbed to pulmonary, miliary, or contralateral renal tuberculosis. These dismal results led to the concept of "opportune nephrectomy" in the 1940s. It was felt that survival might be improved if the stress of surgery were delayed until after an appropriate period of traditional sanatorium rest therapy. The anticipated improvement was not forthcoming.

The pathophysiology of renal infection was first accurately described in 1926 by Medlar.[18] The kidneys of 30 patients dying of pulmonary tuberculosis were studied in serial sections. None had had urinary symptoms, yet tuberculous lesions, usually bilateral, were found in 22 patients. These findings were later confirmed by several large autopsy series. There is now general agreement that urinary involvement with tuberculosis is secondary to hematogenous spread to the kidneys from a primary pulmonary infection. Microabscess formation



Public health regions in Texas

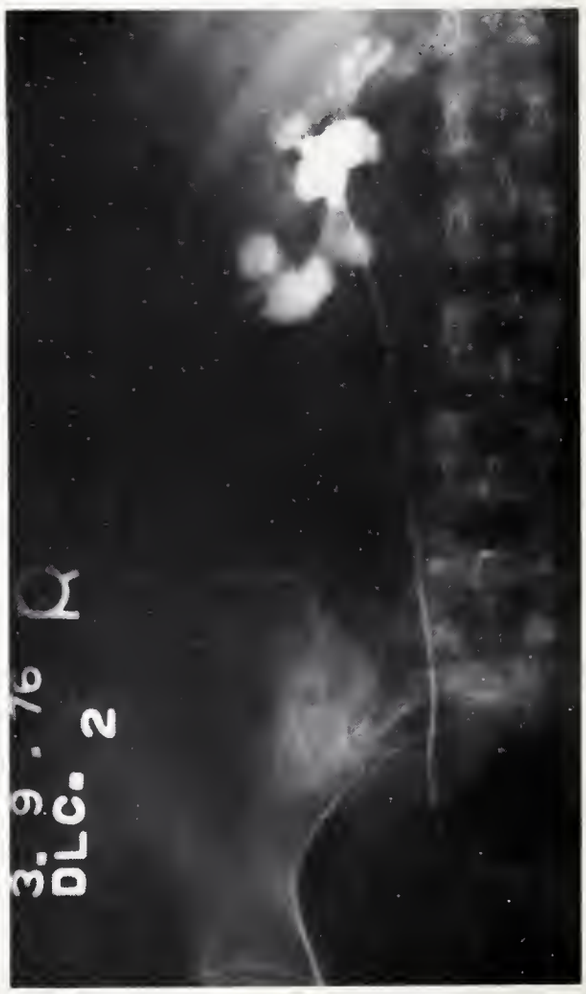
Public Health Region	Pulmonary Tuberculosis 1976	Genitourinary Tuberculosis 1976	Genitourinary Tuberculosis Sept 1977
1	18	0	0
2	54	3	3
3	81	7	4
4	86	1	0
5	498	9	4
6	157	7	5
7	259	3	1
8	677	8	5
9	253	5	6
10	371	6	5
Total	2,454	49	33

1. Public health regions 8, 9, and 10 accounted for more than 50% of pulmonary tuberculosis cases (1,301/2,454) and 40% of urinary tuberculosis cases (19/49) in 1976. Through the first three quarters of 1977, nearly half of the urinary tuberculosis cases have been reported from the three southern regions.

followed by papillary necrosis and infundibular stenosis accounts for renal destruction, and then bacteria disseminate throughout the urinary tract via the urine. While this knowledge doomed the possibility of surgical cure for tuberculosis, the advent of effective chemotherapy in the late 1940s rekindled the hope of curing tuberculosis of the urinary tract.

Streptomycin was introduced in 1949, but initial results of therapy for tuberculous infections of all types were poor, not because the drug was ineffective, but because of poor schedules and insufficient duration of therapy. Reports of improved surgical results with adjuvant chemotherapy began to appear, however, and all surgical specimens removed after the introduction of chemotherapy were noted to contain apparently healing lesions. Chemotherapy was indeed responsible for a radical change in the therapy for renal tuberculosis, as demonstrated by Lattimer's reversal of opinion. In 1953 he stated, ". . . it was still felt by this group that the best treatment for unilateral fibrocaseous renal tuberculosis was nephrectomy. In certain cases where the disease was limited to one portion of the kidney, that portion was successfully excised by partial nephrec-

2a,b. Retrograde pyelograms reveal renal destruction with papillary necrosis caused by renal tuberculosis.



tomy."[15] In 1968, Lattimer first stated that nephrectomy never seemed necessary.[17]

Renal Tuberculosis

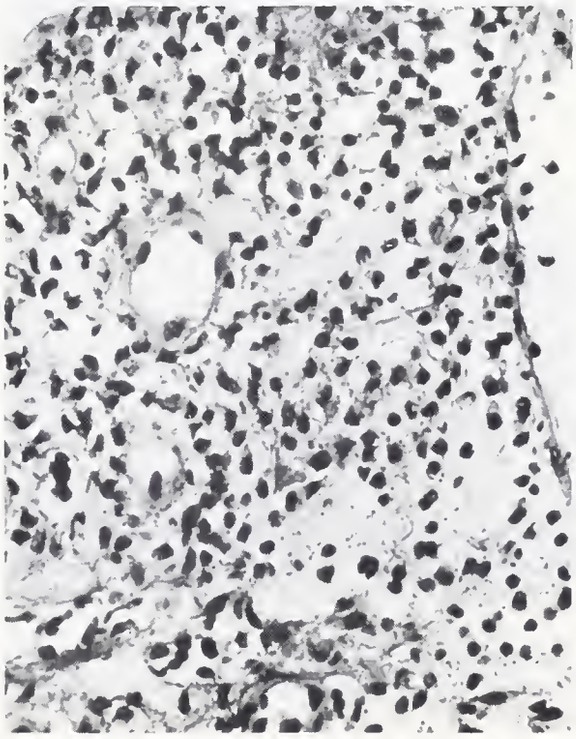
Case 1: A 19-year-old woman suffered the acute onset of pain in the right lower quadrant of the abdomen, frequency, dysuria, and nocturia. She had one episode of gross hematuria with clots. A two-week course of ampicillin did not change her complaints. An intravenous pyelogram showed a normal left kidney and poor function on the right. She had a history of pneumonia two years before admission, but she had never suffered hemoptysis. Urinalysis revealed pH of 5, white blood cells and red blood cells, and proteinuria (4+). Routine urine culture was sterile. A chest film revealed evidence of active pulmonary tuberculosis. Urine cultures were positive for tuberculosis. Cystoscopy revealed hemorrhagic cystitis, and a right retrograde pyelogram revealed beaded deformity of the ureter and gross deformity of the pelvis and calyces (Fig 2).

Sterile acid pyuria is the most common presentation of renal tuberculosis. There is a lag time of 2 to 20 years from the onset of pulmonary infection until the clinical presentation of urinary tuberculosis. It is advocated that all patients with pulmonary tuberculosis have urine cultures for acid-fast bacilli semiannually for ten years after completion of therapy. In large series, 80% have positive urine cultures, and 40% have positive sputum cultures. More than three-fourths have abnormal chest x-rays, and the concurrent incidence of urinary and active pulmonary tuberculosis is approximately 15-35%.[3]

Approximately 63% of those with renal tuberculosis have abnormal pyelograms, two-thirds of which demonstrate apparently unilateral involvement only. Calcifications within the kidneys are present 16% of the time. These abnormal findings are found with increased frequency by the use of tomography. The intravenous pyelogram, however, is a poor indicator of the extent of renal tuberculosis.[3]

Kenny and associates, in 1960, demonstrated that first morning urine specimens gave the same number of positive cultures as did the more cumbersome 24-hour urine collections. Because of their mild bacteriostatic effects on tubercle bacilli, culture results may be altered if patients are taking sulfa or tetracyclines at the time specimens are collected. In cases where there is a high index of suspicion but negative cultures, one should collect three first-voided mor-

3. Biopsy of bladder lesion which simulated a bladder tumor, grossly showing a histologic pattern of nonspecific chronic inflammation without granulomas or giant cells. Culture of tissue grew Mycobacterium tuberculosis.



4a. Normal retrograde urethrogram 14 days after patch graft urethroplasty.

4b. Voiding cystourethrogram obtained six weeks after urethroplasty shows extravasation from bulbous urethra into perineal abscess.

4c. Voiding cystourethrogram after six weeks of antituberculous chemotherapy and suprapubic cystostomy drainage. The patient is currently voiding normally.

ning samples, three 24-hour urine specimens, and three guinea pig inoculations.[4,7,11,22]

Tuberculous Cystitis

Case 2: A 47-year-old woman was seen because of hematuria, frequency, and dysuria. Cystoscopy revealed a hemorrhagic lesion with raised edges on the right lateral bladder wall. The patient has a history of pulmonary tuberculosis treated with chemotherapy in a sanatorium from 1950 to 1952. An intravenous pyelogram revealed an abnormal right upper pole calyx, and a chest film showed right apical scarring. Urinalysis showed pyuria and microscopic hematuria with pH of 6. Urine culture was negative. Five urine cultures for tuberculosis were negative. A biopsy specimen of the bladder lesion revealed acute and chronic cystitis with no evidence of tumor or granuloma (Fig 3). Eight weeks later, culture of the tissue returned *Mycobacterium tuberculosis.*

Tuberculous cystitis has become increasingly rare in the age of anti-tuberculous chemotherapy. Bladder contracture with resultant reflux is disappearing and classic tuberculous ulcers are rarely seen at cystoscopy. Most bladder lesions appear grossly and microscopically to be nonspecific inflammation, but they may simulate infiltrating bladder tumors. Some authors have reported success in the treatment of contracted tuberculous bladders with hydraulic distension under anesthesia in the absence of reflex, but most have had more uniform success with some type of cystoplasty utilizing bowel to increase bladder capacity. If bladder ulcerations persist after sterilization of the urine, sodium oxychlorosene (Chlorpactin) may speed healing of the ulcers.[16]

Genital Tuberculosis

Case 3: A 46-year-old man presented with complaints of slowed stream, hesitancy, and frequency. Radiographs revealed a short stricture of the bulbous urethra which did not respond to dilatations. Persistent sterile pyuria was investigated, but during a two-month period, 12 tuberculosis cul-

tures were sterile. A patch graft urethroplasty was performed without complication and initially appeared to heal well (Fig 4a). Six weeks after surgery the patient suffered a perineal abscess, and urinary extravasation from the previously healed urethroplasty was demonstrated (Fig 4b). Culture of the abscess was sterile, but a preoperative urine culture for tuberculosis collected six weeks previously was coincidentally reported as positive. Initiation of antituberculous chemotherapy and suprapubic cystostomy resulted in prompt urethral healing with no evidence of recurrent stricture (Fig 4c).

Tuberculous prostatitis, urethritis, and epididymitis are more common than tuberculous cystitis and are associated with evidence of pulmonary tuberculosis 75% of the time. The most common presenting complaint is a draining scrotal or perineal sinus, and epididymal involvement is characteristic on palpation. Tuberculous lesions of the spermatic cord have been reported rarely in the past.[8] While most investigators believe urinary tuberculosis is always secondary to a primary pulmonary infection, there have been reports indicating that the prostate may also harbor the primary tuberculous infection.[23] One should always perform acid-fast cultures of semen and prostatic secretions in male patients with any form of urinary tuberculosis, even when urine cultures are negative.[14,22] Genital tuberculosis in women is more common than was once thought, and a large number of positive cultures have been reported recently by culturing menstrual blood in guinea pig inoculations.[22]

Therapy

Chemotherapy

The traditional principles of successful chemotherapy for renal tuberculosis require the use of multiple drugs for an adequate length of time with careful follow-up. Approximately 85% of patients will be cleared of tuberculosis with one course of multiple drug therapy. Multiple courses may also be required, with two courses in 15%, three courses in 5%, and four courses in 1%. Lattimer reports no failures with retreatment by multiple courses of chemotherapy. Most failures were detected within two years of cessation of therapy, all relapses in Lattimer's experience occurring within eight years.[4]

Gow[5] recently reported on a small experimental group of 40 patients treated with a course of rifampin, INH, and ethambutol for three months and rifampin and INH continued for six months. He advocated only two-year follow-up in the absence of calcification. All cultures were sterile within three months of treatment, but ten patients with calcification required excision of the calcification (six nephrectomies, four partial nephrectomies) to achieve this. Twenty-five patients in all required an operation of some type. This series does not, at present, have long-term follow-up and this regimen should not be considered to be adequate without further complication.

The predominant combination in most large series published before 1970 consists of isoniazid (INH) 300 mg/day, para-aminosalicylate (PAS) 15 mg/day, and cycloserine 500 mg/day or streptomycin 1 gm/day. These combinations should be supplemented by pyridoxine (B_6) 100 mg/day. Therapy should be continued for a minimum of two years. PAS is the least tolerated of these drugs due to persistent gastrointestinal upset, but these side effects are diminished by use of the related compounds, sodium PAS or PAS-C. Ethambutol has largely replaced PAS in therapy programs during the past ten years in a dosage of 25 mg/kg/day for two months, then 15 mg/kg/day for the rest of the treatment. It is well tolerated, effective in combination with INH, and produces relatively few side effects. Rifampin in a dose of 600 mg/day is the newest and probably the most effective antituberculous drug currently available. Resistance to this drug is rare, and it is well tolerated. Because it is new and expensive, rifampin has been largely reserved for retreatment of patients in whom chemotherapy has failed in the past. A program of INH, ethambutol, and rifampin for two years constitutes the current combination of choice for genitourinary tuberculosis (Fig 5).

Surgical Therapy

The current role of surgical intervention in the therapy for tuberculosis of the kidney is a fundamental controversy. Surgery is currently aimed at the treatment of complications of renal tuberculosis rather than a cure, in order to maintain maximum physiologic function. Indications for nephrectomy vary with individual surgeons and their experience. Gow subscribes to a surgically aggressive approach to urinary tuberculosis.[6,7] His indications for nephrectomy, based on 265 nephrectomies in 22 years, include:

1. Autonephrectomy with resultant nonfunctioning tuberculous mass. Fifty percent of these are associated with occlusive ureteral strictures and 28% have positive acid-fast cultures despite sterile urine.
2. Gross unilateral disease associated with ureteral obstruction. Efforts at reconstruction in his experience are uniformly destined for failure.
3. Failure to sterilize the urine with appropriate chemotherapy. This is usually the result of a tuberculous abscess, but this is a rare complication.
4. Hypertension due to unilateral tuberculous involvement. This is apparently a rare occurrence. Kaufman and Goodwin reported a small series of patients with hypertension, 70% of which were cured by nephrectomy as compared with a 20% cure rate for hypertensive patients with chronic pyelonephritis.[10] These results have never been duplicated, and in most series, additional vascular lesions are implicated rather than the tuberculosis infection.
5. All kidneys with extensive calcification. A high percentage of positive cultures despite adequate chemotherapy correlates well with the presence of intrarenal calcification.

5. Recommended chemotherapy program for urinary tuberculosis.

INH	300 mg/day
Ethambutol	25 mg/kg/day x 2 months, then 15 mg/kg/day
Rifampin	600 mg/day
Pyridoxine (B_6)	100 mg/day

Patients should be treated for two years with careful monitoring for side effects.

Most authorities in the United States currently follow Lattimer's contrasting conservative surgical approach to renal tuberculosis.[4,16,22] His indications for nephrectomy, based on 333 cases, include:

1. Intractable pain for more than one year.
2. Uncontrollable fever, often with secondary infection proximal to a ureteral stricture.
3. Organisms unresponsive and resistant to all chemotherapeutic agents.
4. Hypertension attributable by standard tests to a tuberculous kidney.

In his experience, these criteria have rarely been met, and he has only performed two nephrectomies and one partial nephrectomy for tuberculosis in the past 17 years.[24] Chemotherapy and follow-up of nonfunctioning tuberculous kidneys was attempted by Lattimer's group.[1] Twenty-two kidneys were left in situ after appropriate chemotherapy, and the patients followed for more than ten years. No ill effects were noted, no complications occurred, and no cases of hypertension developed. In the pediatric age group, nephrectomy for a nonfunctioning tuberculous kidney was occasionally necessary to differentiate it from Wilms' tumor.

Ureteral strictures are the major single cause of lost kidneys in tuberculosis of the urinary tract. This complication occurs in approximately 8% of cases in Reilly's large series.[21] The strictures are usually transient and eventually resolve if renal function can be maintained. These strictures tend to occur at the ureterovesical junction, the middle third of the ureter as it crosses the iliac vessels, and at the ureteropelvic junction. The nature of the lesion

is unclear, but it is probably related to the resolution of the tuberculous infection, which results in an acute inflammatory reaction in and around the ureter, probably a local hypersensitivity reaction to antigens released by destruction of the mycobacteria.[20]

Treatment with ureteral dilatation was claimed to give 90% permanent relief by Kerr and associates in 1970.[12] Lattimer recommends ureteral calibration with a No. 6 French catheter with dilatations periodically as indicated.[24] If this is unsuccessful, ureterotomy and stenting may be necessary. Reconstructive surgery is always risky in this setting, but good results are claimed by many for ureteroneocystostomy when there is sufficient ureteral length. All other reconstructive procedures on the ureter are prohibitively unsuccessful. Prednisone, 20-30 mg/day, may be beneficial in minimizing stricture formation.[13] It may be started when the urine is sterile and continued until radiographic evidence of the stricture is gone. Chemotherapy should be continued for six months after the steroid has been discontinued. A 75% resolution rate has been claimed with the use of corticosteroids for ureteral stricture.

Conclusion

Despite a decreasing incidence of pulmonary tuberculosis infections, there are sufficient cases that a practitioner should anticipate encountering this disease, especially in large cities or in southern Texas. Approximately 9% of these patients may be expected to develop a urinary infection via hematogenous spread.[4] Multiple drug chemotherapy programs continued for two years, with repeated courses necessary at times, are usually curative, but surgical intervention in individually selected cases may be required to manage specific complicated problems. A combination of INH, ethambutol, and rifampin is probably the current chemotherapy of choice. With the availability of effective and safe therapy and sensitive diagnostic techniques, the key to future control of this disease is a vigilant medical community.

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The road to rehabilitation — a TMA committee paves the way

The doctor was drinking too much. So much, that it was affecting his ability to practice medicine. Where to turn? Who to tell?

For too long he had tried to convince himself that he didn't have a problem.

The physician had suffered a stroke. But, that was more than one year ago. He had gone through therapy, and thought he would be able to resume his normal practice.

But, for some reason he just couldn't make it. He needed a change.

To deal with problems such as these, the Texas Medical Association has created the TMA Committee on Physician Health and Rehabilitation. In the above cases, the committee was able to offer an answer, to offer some guidance to these physicians.

Members of the committee acted positively as advocates for the troubled physicians.

In the first case, after being approached by physicians in his own community, the physician was able to face his drinking problem. He agreed to accept treatment. When he finishes his treatment, he hopes to be able to return to his regular practice.

In the second case, community physicians discussed the affected doctor's problems with him. They worked out a way for him to continue practice in a limited capacity.

The TMA committee has designed a brochure being sent to all Texas physicians regarding occupational hazards of medicine. The brochure emphasizes the need for physicians with troubles or problems to seek help before those conditions result in impairment of their ability to practice medicine effectively.

"We push our physical and mental capacities beyond their limits continuously. Physicians work in a state of sustained stress," says information in the introductory brochure distributed by the committee.

Attempting to motivate physicians through a humanitarian approach, the brochure informs physicians on how to seek help through the TMA committee.

"Despite our medical training, or perhaps because of it, we are prone to occupational hazards of physical and emotional stress, long hours, irregular sleeping schedules, and constant fatigue. As a result we often push ourselves into substance addiction, or other conditions which may result in illnesses or impairments in our ability to practice," the brochure says. The committee offers a positive voluntary program for a physician who needs help. The process works this way:

After receiving the name of a physician, the committee works with local physicians. The physician is contacted by another physician, who may be a friend, a colleague, or someone he works with.

The physician counsel will be objective and keep contacts confidential. His primary goal is to help the physician find sources of treatment or consultation so the physician can continue to practice with a sense of confidence and self-direction.

Last year at least 30 physicians sought and received help through their county medical societies.

A special hotline number to TMA head-

quarters is provided for colleagues and other individuals seeking help for physicians.

If any Texas physician feels that he or she or a colleague needs the help of the committee, the Austin number is 512 - 477-5575.

The physician will then receive a confidential telephone call from a fellow physician sincerely interested in helping.

Treatment for the impaired physician can have many different stages. These include education about the impairment, individual counseling, rehabilitation as an outpatient or inpatient, reentry into medical practice, and ongoing maintenance therapy.

The TMA committee has developed a sample agreement as a guide to county medical society officials or others who serve as counselors to physicians seeking help.

The TMA committee recommends some type of agreement between each physician patient and the physician counselor. Complete flexibility will be given to the treating therapist in determining whether the agreement will be verbal or written, formal or informal.

A written treatment and rehabilitation commitment agreement for the physician patient is frequently useful. The agreement or plan should outline problems and goals.

The TMA committee is developing a list of rehabilitation and treatment programs and opportunities for employment of physicians undergoing treatment.

The committee has also urged medical schools, hospitals, and state and federal government agencies to develop rehabilitation programs for physicians.

The committee is working closely with the Texas State Board of Medical Examiners and the Texas Commission on Alcoholism.

Although the approach of the TMA will be primarily voluntary and noncoercive, the sharing of information with the State Board of Medical Examiners will provide an impetus for action in instances where the physician is reluctant to seek consultation or treatment.

The committee is developing training programs for county medical societies, and is also developing information and brochures for use by allied health personnel and physicians' families.

A special hotline number 512-477-5575, to TMA headquarters is provided for physicians seeking help.

Conspiracy of silence

"For too long there has been a conspiracy of silence concerning the doctor's disability," said Leslie Ansley, MD, chairman of the committee. "It was a subject distasteful to bring to the surface for those within and outside the profession. Early reporting by concerned individuals was the exception, not the rule."

The Lubbock physician said the com-

mittee was formed because up to 10% of Texas doctors are candidates for becoming disabled. "We realized that some technical procedure had to be adopted where due process could be served and still make the reporting person immune to civil liability.

"We felt we should act as the physician's advocate and not in a punitive manner," Dr Ansley said.

Doctors are not the usual persons who know or suspect that a colleague is impaired. "Consequently, we must rely on reports from others including spouses, medical assistants, pharmacists, hospital administrators, hospital employees, the Drug Enforcement Agency, the Texas State Board of Medical Examiners, the county medical society, hospitals' staffs, and the Texas Commission on Alcoholism."

The committee is continuing to develop sources of referral for treatment and monitoring of rehabilitation. "We are interested in partial or no-patient contact employment for physicians who are at the halfway house stage.

"We are interested in major medical, practice overhead, and disability income insurance for the doctor in treatment. We want to involve the doctor's family in understanding the problem and how to cope with it," he said.

The committee is developing educational programs for county medical society members to help them in assuming their advocacy role. The problem should be handled on a local level if at all possible, he stressed.

The committee is encouraging medical schools to include self-awareness programs for students and definite instruction on the peculiar position doctors are in which makes it easier for them to become alcohol and substance abusers in curricula.

"In formulating our program, we have sought the help of other states' programs and have benefitted from their experience. I think we have a workable guideline of operation.

"There is the possibility that we can help effect the reentry of one physician per week in Texas. Suddenly, this seems enormously rewarding, and gives us impetus to proceed ahead at full steam," Dr Ansley said.

"For too long there has been a conspiracy of silence concerning the doctor's disability"

Nationwide programs

Medical societies in more than half of the United States now have programs for impaired physicians. At least 28 states have adopted legislation dealing with impaired physicians, all at least partly drawn from the AMA model legislation drafted in 1974.

More individual hospitals have programs and state licensing boards are joining the cooperative effort with organized medicine and hospitals' staffs to find, confront, rehabilitate and, if necessary, discipline the disabled physician.

Surveys show a wide diversity of approaches to the disabled physician problem. This diversity reflects differences in state laws, in the perceived magnitude of the problem, in philosophy, in malpractice situations, in the question of liability, in the interest of physicians in helping disabled colleagues, and the availability of funds to staff and expand programs.

First is the completely independent and voluntary program such as the Medical Society of the State of New York's Physicians' Committee, which has no links with the state board and makes no records or reports of its work.

The state medical society Physicians' Committee is composed of physicians skilled in dealing with alcoholic, drug-addicted, or mentally ill patients. After a complaint is received at the medical society, a member of the Physicians' Committee contacts two other members of the Committee who in turn confront the disabled physician and offer to guide him into treatment. If the disabled doctor does not wish treatment

Medical societies in more than half of the United States now have programs for impaired physicians

his desires are respected. Those who report disabled physicians are free at any time to try to coerce them into treatment or to report them to the Board of Professional Medical Conduct. The Physicians' Committee contacted 53 physicians from late 1974 through June 1976.

Second is the medical society program closely linked to state programs through the licensing boards, in Florida, Maryland, Arkansas, and Kentucky.

Florida has had an amendment as part of its Medical Practice Act since 1969, making it one of the first states to acknowledge and officially deal with the problem. The Florida Medical Association has a Membership and Discipline Committee composed of 60 members, four from each of the 15 Congressional districts. The committee serves as an investigational and peace-making arm of the Judicial Council of the Florida Medical Association.

The Florida State Board of Medical Examiners can deputize individual members of the committee to act as agents for the board in investigating cases involving physician drug addiction, alcoholism, or unprofessional conduct.

As a result of these investigations the Board can recommend that a physician enter treatment. If he refuses to do so voluntarily, the board can compel him to do so after an appropriate administrative hearing.

Third is the combined "coercive and non-coercive" programs within the medical society, in Georgia, Utah, Washington, and Minnesota.

The Medical Association of Georgia Disabled Doctors Plan became operational during 1975 and is implemented through two committees. The Physicians' Consultant Committee is composed of 13 physicians distributed throughout the state. They contact physicians referred to them and offer to act as advocates for the disabled physician in relationships with spouse, family, professional peers, and hospital administrators. They also help with planning for treatment.

The Professional Conduct and Medical Ethics Committee refers complaints to the Physicians' Consultant Committee for handling and makes recommendations to the State Board of Medical Examiners when a majority of the Professional Conduct and Medical Ethics Committee membership agrees that the reasonable efforts of the Physicians' Consultant Committee have failed. The Professional Conduct and Medical Ethics Committee legally has no power beyond that of recommendation, but as a matter of course the State Board of Medical Examiners often follows its recommendation.

Conference on the troubled physician

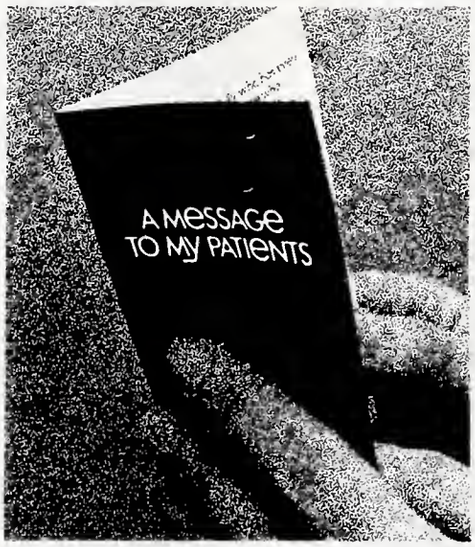
The TMA Committee on Physician Health and Rehabilitation will sponsor a conference on the troubled physician May 12, 1978 during TMA Annual Session in San Antonio.

The conference will include a presentation by Dr Ansley, on the responsibilities of the county medical society and the profession in assisting troubled colleagues and a panel presentation on experiences of state and county medical societies.

Also on the agenda will be another panel presentation on legal and licensing considerations with representatives from the Texas State Board of Medical Examiners, the Regional Office of the Drug Enforcement Administration, and TMA Legal Counsel, Brown, Maroney, Rose, Baker & Barber. A special session will be presented with instructions and guidelines on how to counsel a troubled colleague.

The conference is designed for physicians who serve as counselors for local county medical society committees.

STOP A DRUNK DRIVER IN YOUR WAITING ROOM.



We have a way to help you do it. It's our tabletop display card suggesting that patients talk to you about drinking and driving. Otherwise, they may never bring it up. Fear and embarrassment keep most people from talking about alcohol abuse. But by asking, they can learn enough not to drive after "just a few."

That's why we want your help in reaching people who drink too much too often. As a health-care professional, you can speak with authority and they'll listen. But first they may need some prodding to get them to discuss their drinking habits.

Therefore we're offering you, free of charge, a small (8" x 8") tabletop display card and a supply of pocket-sized leaflets—both titled "A Message to My Patients"—designed to encourage patients to ask your advice about abusive drinking, and to start them thinking about related driving hazards. The materials work. In test cities, up to 60% of physicians displaying them noted increased discussion of alcohol problems.

Your local affiliate of the National Council on Alcoholism is also ready to assist you with referrals to counseling and therapy services and in other ways.

Right now, automobile crashes kill more people aged 35 and under than any illness. And half of all automobile deaths are alcohol related.

Stop a drunk driver in your waiting room.

They'll listen to a pro.

To: Film & Literature Section, Texas Commission on Alcoholism
809 Sam Houston Office Bldg. Austin, Texas 78701

Please send me a free supply of
"A Message to My Patients" leaflets and a display card.

Name_____
(Please print or type)

Address_____

City_____ State_____ Zip_____

Please indicate
your medical specialty:_____

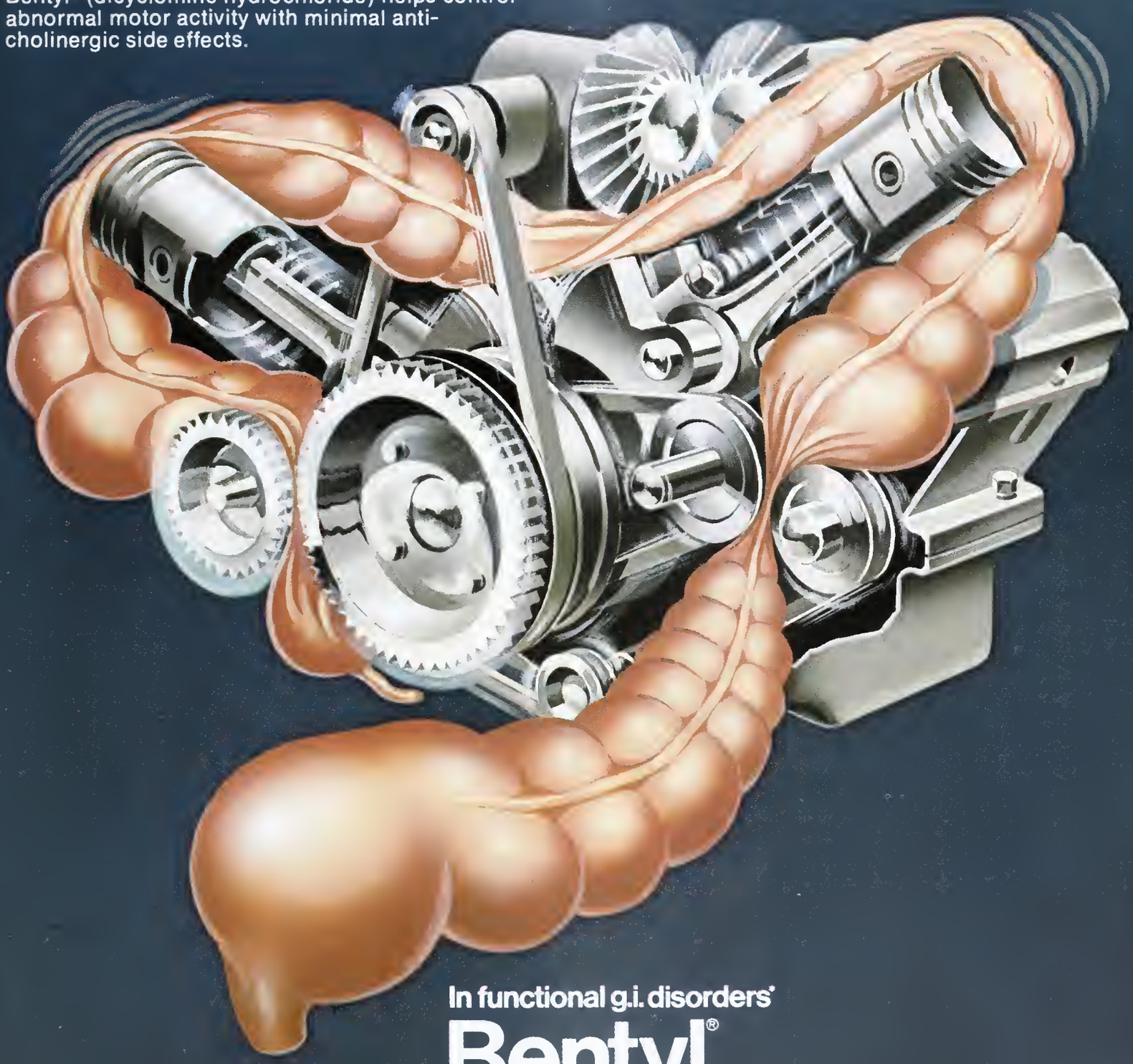
Sponsored by
Texas Medical Association
in conjunction with
Texas Commission on Alcoholism

Prepared by
Department of Transportation (NHTSA)
in cooperation with
National Council on Alcoholism

Abnormal motor function

Abnormal motor function is a frequent cause of the spasm, pain, distention and cramps that characterize a wide range of g.i. complaints. "It has been estimated that about three quarters of patients seeking medical care because of gastrointestinal complaints have functional derangements. Certainly these are more commonly related to abnormal motor activity than to anything else."[1]

Bentyl® (dicyclomine hydrochloride) helps control abnormal motor activity with minimal anti-cholinergic side effects.



In functional g.i. disorders*

Bentyl®

(dicyclomine hydrochloride)

10 mg. capsules, 20 mg. tablets, 10 mg./5 ml. syrup, 10 mg./1 ml. injection.

helps control abnormal motor activity.

*This drug has been classified "probably" effective in treating certain functional g.i. disorders. See brief summary.

Kefzol® I.M./I.V.

cefazolin sodium

Ampoules, equivalent to 500 mg., 1 Gm., and 10 Gm. of cefazolin

Lilly

Additional information available to the profession on request.
Eli Lilly and Company
Indianapolis, Indiana 46206

700773

Bentyl®
(dicyclomine hydrochloride)

Tablets, Capsules, Syrup, Injection
BRIEF SUMMARY

ACTION: Bentyl relieves smooth muscle spasm of the gastrointestinal tract.

INDICATIONS: For use as adjunctive therapy in the treatment of peptic ulcer IT SHOULD BE NOTED AT THIS POINT IN TIME THAT THERE IS A LACK OF CONCURRENCE AS TO THE VALUE OF ANTICHOLINERGICS/ANTISPASMODICS IN THE TREATMENT OF GASTRIC ULCER IT HAS NOT BEEN SHOWN CONCLUSIVELY WHETHER ANTICHOLINERGIC/ANTISPASMODIC DRUGS AID IN THE HEALING OF A PEPTIC ULCER, DECREASE THE RATE OF RECURRENCES, OR PREVENT COMPLICATION

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as "probably" effective

May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders), and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon)

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS

For use in the treatment of infant colic (syrup)

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy), obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis), paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis, toxic megacolon complicating ulcerative colitis; myasthenia gravis

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating).

Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy In this instance treatment with this drug would be inappropriate and possibly harmful

Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy Use with caution in patients with.

Autonomic neuropathy

Hepatic or renal disease

Ulcerative colitis Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon.

Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension

Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition

It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis)

Do not rely on the use of the drug in the presence of complication of biliary tract disease.

Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate

With overdosage, a curare-like action may occur

ADVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these

Adverse reactions may include xerostomia, urinary hesitancy and retention, blurred vision and tachycardia, palpitations, mydriasis; cycloplegia, increased ocular tension, loss of taste, headache, nervousness; drowsiness, weakness, dizziness, insomnia, nausea, vomiting, impotence, suppression of lactation, constipation, bloated feeling, severe allergic reaction or drug idiosyncrasies including anaphylaxis, urticaria and other dermal manifestations, some degree of mental confusion and/or excitement, especially in elderly persons, and decreased sweating

DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs

Usual Dosage: Bentyl 10 mg capsule and syrup
Adults: 1 or 2 capsules or teaspoonfuls syrup three or four times daily
Children: 1 capsule or teaspoonful syrup three or four times daily
Infants ½ teaspoonful syrup three or four times daily (May be diluted with equal volume of water)
Bentyl 20 mg Adults 1 tablet three or four times daily

Bentyl Injection: Adults 20 mg (2 ml.) every four to six hours intramuscularly only
NOT FOR INTRAVENOUS USE.

Reference 1 Lorber, S.H. G.I. Dialogue #1
MERRELL-NATIONAL LABORATORIES, 1976

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Division of Richardson-Merrell Inc.
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The romantic and the medical: San Antonio hosts 1978 Annual Session

San Antonio's unique charm and personality are waiting for you on the banks of the San Antonio River. You'll discover the city's international fascination in colorful international restaurants, in dark corridors and ornate chapels of historic Spanish missions, in intimate shops and boutiques—in every corner.

This extraordinary city, the site of Texas Medical Association's 111th Annual Session, invites you and your sense of adventure to join your colleagues there May 11-14 for continuing medical education, discussions on important medical issues, and fun.

111th Annual Session

Fifty-eight guest speakers and 400 special and TMA-member speakers will present a comprehensive scientific program during the Annual Session. The 22 section programs will explore the latest advances in disciplines ranging from allergy to urology, and the American Medical Association and TMA will combine talent to present ten postgraduate courses Saturday and Sunday.

Also on the program are 21 curbstone consultations, person-to-person conversational discussions of cases, and problems of general medical interest. Registrants can join speakers for coffee, rolls, and short lectures Friday and Saturday mornings during the continental breakfast presentations.

Thirty specialty society programs, seven special committee symposia, 130 scientific and technical exhibits, and the forum of original research complete an outstanding scientific program.

All scientific symposia, lectures, and other programs meet the criteria for Category 1 credit under the Physician's Recognition Award of the American Medical Association. For a partial list of the courses offered in conjunction with the Session, see page 38.

Friday's general meeting luncheon at the Convention Center will feature speaker Edward Teller, PhD, a nuclear physicist at Lawrence Livermore Laboratories, Livermore, Calif. AMA President John H. Budd, MD, will speak at the Delegates' Luncheon Thursday, May 11, at 1 pm, also at the Convention Center.

The House of Delegates convenes at 8 am Thursday, Friday, and Saturday, and reference committees will begin their sessions at 10 am Thursday. Members are invited to participate in the reference committee hearings—it's your chance to help shape TMA policies on cost containment, a TMA-sponsored self-insurance trust, physician reimbursement, and other important medical issues.

On the lighter side, the Physicians' and Spouses' Art Exhibition and tennis and golf tournaments will afford opportunities to display nonmedical expertise. Golfers can participate in a tournament beginning Wednesday, May 10, at Pecan Valley Golf Course, the site of the 1968 PGA Championship tournament. And, tennis games begin at 8 am the same day, at McFarlin Tennis Center. Men's open singles and doubles, men's 45 and over singles and doubles, and women's open singles and doubles events are scheduled.

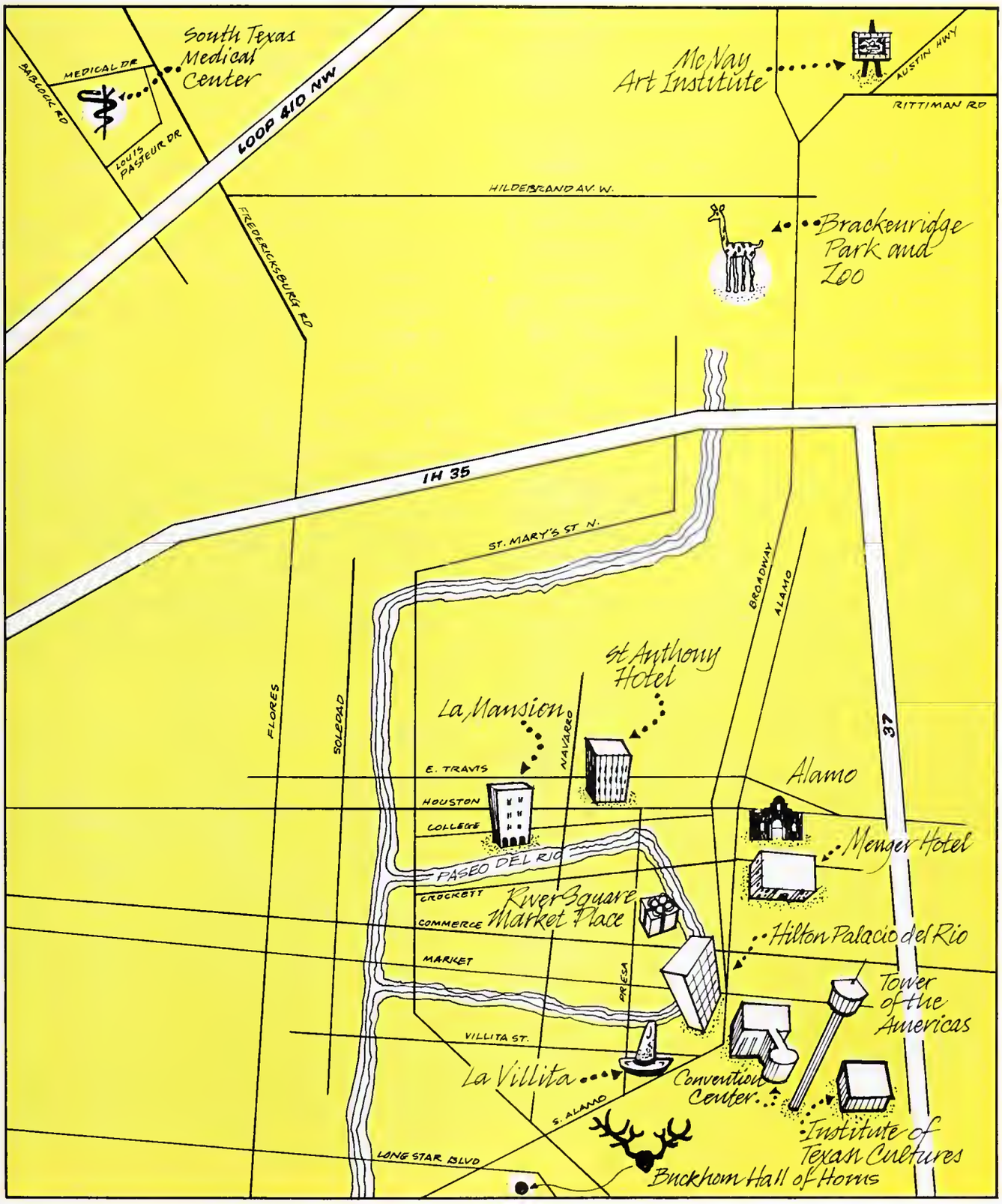
Inspired polka-ers, experienced beer drinkers, and sausage connoisseurs can show off their talents at TMA's own German May Fest on Friday, May 12. The unfaltering rhythm of Pehl's Oompah Band will signal the opening of the party at 7 pm at the Institute of Texan Cultures in Hemis-Fair Plaza.

The TMA Auxiliary will celebrate its 60th anniversary during the session. La Mansion will host the Auxiliary's convention, which follows the theme, "Tradition is San Antonio."

Paseo del Rio

At the end of a day full of scientific and business meetings, board a water taxi at the north side of the Convention Center, the site of most scientific sessions, and relax with a cruise down the San Antonio River.

A collage of colors accents the mid-city river's Venetian beauty—the vibrant green of banana trees that shade the banks, the cafes' brightly striped red and yellow awnings, and the hues on the canvas of a meticulous artist displaying his handiwork. And the scents of delicate crepes,



New Orleans-style oysters, and spicy enchiladas will tempt your appetite. (Several restaurants along the 21-block River Walk offer dinner on barges by reservation.) You can set the tone of the evening with lively Dixieland jazz, the latest disco hit, romantic mariachi strings and horns, or a sing-a-long at a friendly Irish pub.

See our guide to restaurants and night spots for more complete descriptions of the entertainment along the river and throughout San Antonio.

Missions

San Antonio's five historic and beautiful missions have fascinating stories to tell—stories of Spanish priests' struggles to civilize and colonize the untamed New World; of the bloody battles fought for Texas' independence; of courage, defiance, and the other traits that characterize Texas and Texans. The spirits of the famous, infamous, and unfamous haunt the chapels, living areas, and gardens of each mission.

The most illustrious of the missions is the Alamo. It was here that William B. Travis, James Bowie, David Crockett, and less than 200 courageous soldiers died in 1836 while defending the structure from Mexican President, General Antonio Lopez de Santa Ana, the Napoleon of the West, and almost 5,000 troops. As every Texan knows, "Remember the Alamo," inspired Texans to victory and independence as a republic in April of the same year.

The Alamo, the most famous of San Antonio's five missions, was founded in 1718. In 1836, during the war for Texas Independence, almost 200 Texas soldiers were killed by General Santa Ana and his Mexican troops.

The Alamo, designated a state park in 1965, is administered by the Daughters of the Republic of Texas. It is located on the corner of East Houston and South Alamo streets, and is open to visitors 9 am to 5:30 pm Monday through Saturday and 10 am to 5:30 pm Sunday.

The Queen of Texas missions, Mission San Jose y Miguel de Aguayo, was founded in 1720 by Father Margil de Jesus from Valencia, Spain, and is a national historic site. The Rose Window, veiled in romantic legends, adorns the facade of the mission at 701 E Pyron. One version of the history of the window and its creator, Spaniard Pedro Huizar, explains that King Philip V sent the artist to America. Huizar dedicated his labors to his fiancee, Rosita Gonzales, who was to join him in America. But, Rosita died during the voyage from their homeland and Huizar was so grieved by his loss that he died shortly after completing his masterpiece. You can visit the mission from 9 am to 6 pm daily. Admission is 50 cents for adults and 25 cents for children.

San Juan Capistrano, San Francisco de la Espada, and Concepcion missions also offer stories of romance and heroic deeds.

Headquarters hotels

The Hilton Palacio del Rio, St Anthony, and Menger hotels are headquarters for various Annual Session functions. Each offers its guests something special, and might persuade them to stay just a little longer.

The Hilton Palacio del Rio—the palace on the river—has 500 guest rooms and is the largest of the headquarters hotels. It is conveniently located across the street from the Convention Center, and the Paseo del Rio, the River Walk, is at the back door. The hotel was constructed in 1968 to accommodate HemisFair visitors and is decorated in a style that reflects San Antonio's Spanish heritage. The Hilton and the historic Menger

Hotel and Motor Inn are co-headquarters for TMA's scientific sessions.

The Menger has been host to some important guests since its opening—Lillie Langtry, Sara Bernhardt, Generals Lee and Grant, and Sam Houston, to name a few. And the Menger Bar, a landmark of the early West, saw Teddy Roosevelt recruit his famed Rough Riders. The hotel's oversized guest rooms with twin double beds overlook an inviting pool, lush tropical gardens, and the Alamo.

The St Anthony, where most of TMA's business sessions will be conducted, boasts that "Only time can make a hotel this great." The hotel opened its doors in 1909, and was the first such establishment in the world to offer central air conditioning, electric-eye doors, and a completely equipped drive-in and garage/registration facility. An original Remington painting, handmade Mexican tiles, a 1924 Steinway piano first displayed in the Russian Embassy in Paris, and other objets d'art create elegant surroundings for the St Anthony's guests.

The Tower of the Americas opened in 1968 as the theme structure for San Antonio's World Fair. The 750-foot visitor attraction displays a panorama of the city and the nearby Texas Hill Country.

The Sunken Garden, in Brackenridge Park, originally was a rock quarry. The garden is regarded as one of the most famous beauty spots in Texas.

To make your reservation at one of San Antonio's fine hotels, refer to housing information on pages 65-68.

Statistics

San Antonio is the heart of the Standard Metropolitan Statistical Area (SMSA) that includes Bexar, Comal, and Guadalupe Counties. The city is the seat of Bexar County, and has a population approaching one million, making it the third largest city in the state. In terms of land area, it is the tenth largest city in the United States.

As Texas' most prominent military center, San Antonio is home to Fort Sam Houston. This three-star command post oversees operations of US Army Reserve and Army National Guard units from a 13-state area; the US Army Health Services Command; the Academy of Health Sciences; Brooke Army Medical Center, one of the Army Medical Department's large teaching hospitals; the US Army Institute of Surgical Research, internationally recognized for research and treatment of burn cases; and the US Army Regional Dental Activity, the military's supplier of prosthetic appliances.

According to the 1976-1977 *Texas Almanac,* the San Antonio SMSA employs 226,536 persons out of a labor force of 347,900. The payrolls of $1,547,026,864 generate an effective buying income of $3,852,526,000.

The altitude at San Antonio is 701 feet, average annual rainfall is 27.54 inches, and the growing season in the subtropical climate is 265 days long. The average temperature range in May is

Medical education: San Antonio's contribution to the future

Remember these days? A medical student notes the major points of a lecture. Many students are expected to begin their continuing education during TMA's 111th Annual Session.

San Antonio's animated night clubs, elegant restaurants, and grand hotels make it one of the nation's most fun-filled vacation spots, but the city has its serious side, too—a long-standing committment to higher education.

Since 1852, when St Mary's University was established, seven institutions have been founded in San Antonio. One of these is The University of Texas Health Science Center. The community's traditional support and the University's innovative leadership have placed the Center at the fore of medical education and research.

History

The Center began in 1959 when the Board of Regents of The University of Texas approved the establishment of the South Texas Medical School, the UT System's third medical school. Support from the citizens of San Antonio followed quickly in the form of a $5 million bond issue to help finance construction of a teaching hospital adjacent to the proposed school. In 1961, the San Antonio Medical Foundation deeded 100 acres of land in the South Texas Medical Center, in the northwest part of the city, to the University's new project.

The San Antonio school began to take shape even before the physical plant was built as the regents recruited the first dean, Robert C. Ber-

65.4° to 85.5°, so plan for some beautiful weather while you're there to indulge in the San Antonio experience and TMA's 111th Annual Session.

Before and after

If you're coming from North, Northeast or West Texas, or from out of state, you might like to visit the Gulf of Mexico or Old Mexico—both are within a three-hour drive. Corpus Christi is approximately 150 miles southeast of San Antonio, and Laredo is about 150 miles to the southwest.

San Marcos, with its lovely Aquarena Springs; the Natural Bridge Cavern, Texas' largest underground cavern; and Bandera, the home of several dude ranches, are even closer—each is within an hour's drive.

Or, you may favor following the Texas Highway Department's Hill Country Trail, one of ten established travel trails making a loop 500 to 780 miles long. In addition to San Antonio, this trail leads travellers through Austin and its Highland Lakes and the LBJ hill country.

Who knows—even Central and South Texans might like to consider some of these side trips.

San Antonio and the Texas Medical Association beckon you to a revitalizing experience.

Photographs on pages 110, 111, 114, courtesy of San Antonio Convention & Visitors Bureau. Photograph on page 112, courtesy of UT Health Science Center at San Antonio.

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son, MD in 1962. Dr Berson, a former medical vice-president of the University of Alabama and dean of the school's medical college, supported a new approach to the school's curriculum development. The dean planned to recruit faculty members to immediately develop residency programs. He projected that by 1964, the school could draw 25 to 30 third year students from other schools and that the prior operation of the clinical program would enhance the quality of those applicants.

Growth

But, Dr Berson's projection was premature. Student enrollment did not begin until September 1966 when 15 entering students were registered and assigned to UT medical schools at Dallas and Galveston.

Construction of the San Antonio school, one of the first designed as a complete unit, had begun earlier in the year, and cost approximately $12 million. The new building was dedicated July 12, 1968, and classes began in September for 56 freshmen, and 54 sophomores and juniors. The curriculum combined basic science and clinical science to the greatest extent possible. In fact, students were introduced to patient contact during the first week of school.

Before classes had been under way three months, the regents approved a land use study of the medical school that proposed a three phase expansion program. The result is that today, the medical school, with 500 students, is but one component of the training and research complex that in 1972 was dubbed The University of Texas Health Science Center at San Antonio.

Today

The Center offers training programs for dentists, scientists, nurses, and allied health professionals, as well as physicians. And, the Health Science Center has been awarded more than $12 million in grants to be applied to the studies of atherosclerosis, cancer, kidney disease, immunity, nutrition, and other problems.

The physical size of the Center also has grown, reflecting this expansion in services. Dental and nursing school buildings were completed in 1970 and 1974, respectively, and the Center's library boasts more than 100,000 volumes and 2,000 periodical subscriptions.

San Antonio, the UT System, and the state of Texas have watched the Health Science Center grow from a paper plan to a multimillion dollar education and research complex. The story behind this growth reveals the innovation and foresight that continue to guide the Center's development.

Restaurants and amusements

PASEO del RIO

Caffé Michelino, 231½ S Broadway. Italian menu, boat dining available, bar. Lunch Mon-Fri 11:30-2:30; dinner 5:30-11, Sat 11:30-1, Sun 11-11. $3-$4.50 (223-2939)

Casa Rio, 604 River Walk. Mexican menu, dinner on barges by reservation. Mon-Sat 11:30-9. $2-$4. (225-6718)

Durty Nelly's, next door to the Hilton Palacio del Rio. Informal Irish pub with piano singalong. Noon-1 am daily. (222-2481)

El Quetzal, Hilton Palacio del Rio. Buffet lunch Mon-Fri 11:30-2, dinner 5:30-11 daily, cocktails. Dinner $6-$9.50. (222-2481)

Fig Tree, 515 Villita St. Crown rack of lamb, beef Wellington, chateubriand, roast duckling, white veal English mix, fresh fish. Free valet parking. 6-11 pm daily. $14.50 per person. (224-1976)

The Greenhouse, 516 River Walk. Homemade soups and bread. 11:30-3 daily. 75 cents-$2.25. (224-4515)

The Kangaroo Court, 512 River Walk. Sandwiches, New Orleans-style oyster bar, seafood. Sun-Thurs 11:30-11, Fri-Sat 11:30-midnight. $2-$8.75. (224-6821)

The Landing, 522 River Walk. Dixieland jazz 9-2 Tues-Sat. (223-7266)

Little Rhein Steakhouse, 231 S Alamo St. Steaks, seafood, bar, private dining rooms available. Open nightly at 5. $7.85-$11.95. (225-2111 or 225-1212)

MUD on the River, 312 N Presa. Art gallery, Mon-Sat 11:30-5.

River Square, 403 E Commerce. Small craft and import shops, tea room. Mon-Thurs 10-5:30, Fri-Sat 10-9, Sun 12-6.

Royal Street Crossing, 526 River Walk. Club and crepe restaurant, boat parties available, dancing nightly after 8. 11:30-2 am daily, serving food till 1:30 am, happy hour 3-7 pm. $1.85-$4.95. (226-6256)

Terry Clegg, 518 River Walk. Unusual clothing and gifts for men and women; imports from India, Japan, Mexico, Afghanistan. Open Mon-Sat at 11:30

Downtown San Antonio as seen from the observation deck of the Tower of the Americas. The city offers visitors a variety of restaurants and nightspots from which to select an evening's entertainment.

OTHER RESTAURANTS AND CLUBS

Abernathy's, 6106 Broadway, Suite A-1. Continental cuisine, bar. Happy hour Mon-Sat 4-6:30, dinner 6-10:30. $4.25-.$9.95. (824-4591)

Bull Moose, 6501 Blanco. Wild game, bar in a Teddy Roosevelt atmosphere. Lunch 11-2:30 daily, dinner 5:30-11:30 daily. Lunch $1.95-3.95, dinner $6-$10. (344-4531)

Crystal Baking Company, 1039 NE Loop 410. Seafood, veal, chicken, steaks, bar, Victorian decor. Lunch Mon-Sat 11:30-2:45, Sun noon-3; dinner Mon-Thurs 5:30-10:30, Sat noon-11:30, Sun noon-10. Lunch $2.25-$3.95, dinner $4.25-$7.95. (824-4591)

El Meson Latino, 3802 Broadway. South and Central American and Spanish specialties. Wed-Mon 11-11. $2.25-$8 ($14.95 for paella for two). (822-3000)

Gazebo at Los Patios, 2015 NE Loop 410. Salad plates, crepes, quiche lorraine, bar. 11:30-2:30 daily, bar open till 6. $2.50-$3.95. (655-6190)

Golden Palace, 8822 Wurzbach. Chinese, bar. Lunch 11-2:30 daily. dinner Mon-Thur, Sun 5-10; Fri-Sat 5-12. $3-$10. (696-8700)

La Louisiane, 2632 Broadway. French cuisine featuring white veal with king crab Bearnaise sauce, flaming desserts; dancing; bar. Lunch Tues-Sat 11:30-2, dinner 6-10:30. Lunch $4-$6, dinner $8.50-$10.50. (225-7984)

The Loft, IH 10 and Cascade Caverns Rd. Heavy beef and seafood by candlelight in "rustic elegance," bar, dancing. Open Wed-Sat at 6, Sun at 2. $5.95-$10.95. (698-2616)

Lorenzo's Italian Restaurant, 8744 Wurzbach Rd. Homemade Italian dishes. Tues-Sun 5-10. $2.95-$5.85. (696-0099)

Magic Time Machine, 902 NE Loop 410. Steaks, seafood, drinks, disco. Dinner 5:30-11 daily. $5.95-$9.95. (828-1478)

Pelican's Wharf, 2818 NE Loop 410. Prime rib, steak, lobster, crab. Dinner 5-11 daily. $4.95-$10.50. (657-2220)

Phillippine House, HemisFair Plaza on S Alamo. Chicken adobo, lumpia, beer, wine. Tues-Sun 11-9, Mon 11-2. $1.50-$5.75. (223-5933)

Pioneer House, Grandview Shopping Center. Hamburgers, prime rib, seafood, sandwiches, omelettes, bar. Open Mon-Sat at 11:30, Sun at 5. $2.95-$8.50. (341-9159)

Sugar Daddy's, 8523 Tee Cee. Disco. Sun-Wed 9-2, Thurs-Sat 9-4. Ladies arm wrestling Wed. Happy hour 5-7. (822-7529 or 822-5352)

Tower of the Americas, HemisFair Plaza. Revolving restaurant and lounge 550 feet up. Lamp chops, red snapper. Lunch 11-2, dinner 5:30-11 daily; Cloud Room Lounge, Sun-Thur till midnight, Fri-Sat till 2. Lunch $2.95-$5.95, dinner $4.95-$9.95. (223-3101)

MUSEUMS AND INSTITUTES

Hertzberg Circus Collection, 210 W Market. Circus memorabilia that includes Tom Thumb's carriage. Mon-Sat 9-5, Sun 1-5. Free.

Institute of Texan Cultures, Durango at IH 37 on HemisFair Plaza. Permanent exhibit on Texas ethnic groups with explanation in Spanish and English. Tues-Sat 9-5. Free. (226-7651)

McNay Art Institute, 6000 N New Braunfels. Impressionist paintings, American watercolors, graphic art, Gothic and Medieval gallery, sculpture pavilion, Southwestern folk art. Tues-Sat 9-5, Sun 2-5. Free. (824-5368)

Mexican Cultural Institute, Plaza de Mexico, HemisFair. Folk art; graphics, sculpture, paintings by contemporary Mexican artists. Mon-Fri 9-5. Free. (227-0123)

ETC

The Alamo, corner of E Houston and S Alamo. Mon-Sat 9-5:30, Sun 10-5:30.

Brackenridge Park, entrance at 3900 Broadway. 343 acres with picnic grounds, miniature railway, sky ride, stables, oriental sunken gardens, zoo. Open 24 hours a day. (223-9133)

Buckhorn Hall of Horns, Fins, and Feathers, 600 Lone Star Blvd, World's largest collection of horned trophies, historic Buckhorn Saloon. 9:30-5:30 daily. Adults $1, children (6-12) 50 cents.

King William Historic District. 19th century examples of Regional Victorian, Gothic Revival, Romanesque Revival, Colonial Revival, Victorian Empire, and other architectural styles; first owned by San Antonio's German settlers. Free walking tour pamphlets available at 107 King William St.

Fiesta Dinner Playhouse, 1270 NE Loop 1604. Rose Marie will appear in "Up a Tree." Dinner 6:30-8, show at 8:30 Mon-Sat; lunch 12-1:30, show at 2 Sun. $10-$15 per person. (494-7793)

La Villita, Paseo de la Villita, bounded by River Walk, S Alamo, Nueva, and Presa streets. Arts, crafts, boutiques, galleries, glass blowers, restaurants, Old San Antonio Exhibit. 8 am-6 pm daily.

Melodrama Theatre, Gate 1, HemisFair Plaza. "Tara! Tara! Tara! (Gone With the Breeze)," a musical melodrama based on *Gone With the Wind*. $3-$4 per person. (224-4464)

Texas Rowels Major League Rodeo, Joe Freeman Coliseum. Rowels vs Los Angeles Rough Riders May 10 & 13. (828-9444)

MEDICINE AND THE LAW

RURAL HEALTH CLINICS LEGISLATION

Rural health clinics legislation, HR 8422, was passed by the 95th Congress First Session. The bill was signed Dec 13, 1977, and became PL 95-210. Rules and regulations issued by the HEW Secretary have been published implementing this act in the *Federal Register* Volume 43, No 27, Feb 8, 1978, page 5373. Because of its importance and potential impact on physicians, a summary of the law and regulations relating to rural health clinics is presented.

Coverage for medical services

The Rural Health Service Act of 1977 extends Medicare and Medicaid coverage for medical services furnished by a rural health clinic that meets the Act's terms and conditions. These are services which would be covered otherwise if furnished by a physician or incident to a physician's services.

The law and regulations outline requirements the clinic must meet to be certified for participation in Medicare or Medicaid.

To be certified, a clinic must be located in an area that has been designated by the US Bureau of Census as rural and has been designated by the HEW Secretary as having a shortage of personal health services or primary medical care manpower.

Medicare and Medicaid coverage is provided for medical services furnished by a qualified physician assistant or nurse practitioner.

Although a clinic must still have one or more physicians available to provide medical direction and carry out other specified responsibilities, the clinic's services may be furnished directly by a nurse practitioner or a physician assistant, as defined in the law and regulations.

Regardless of how many hours a physician is present at the clinic, each clinic must have at least one nurse practitioner or physician assistant on the staff. This is a statutory requirement and means that a rural health clinic can be certified only if the state permits. It does not explicitly prohibit the delivery of primary health care by a nurse practitioner or a physician assistant.

The clinic's staff may also include other health professionals such as nurse midwives and other nurse practitioners who specialize in a particular range of services.

Responsibilities and obligations

The responsibilities and obligations of physicians, physician assistants, and nurse practitioners are specified in the law and regulations.

A physician must provide medical supervision and guidance for the physician assistants and nurse practitioners, prepare medical orders, and review periodically the services furnished by the clinic.

A physician must be present at the clinic for sufficient periods of time to fulfill these responsibilities and must be available at all other times by direct means of communication for advice and assistance on patient referrals and medical emergencies.

To insure the presence of a physician on a regular but minimal necessary basis, the regulation requires that a physician be present at the clinic at least once in every two week period, subject to extraordinary circumstances.

A clinic operated by a nurse practitioner or physician assistant may satisfy these requirements through agreements with one or more physicians.

In addition to furnishing clinic services, the nurse practitioners and physician assistants must participate in development and administration of the clinic's patient

care policies, insure proper maintenance of patient records, and arrange for patients to receive necessary services not furnished by the clinic.

Services provided

The primary purpose of this legislation is to make available outpatient or ambulatory care of the nature typically provided in a physician's office, outpatient clinic, or emergency room. The regulations specify the services which must be made available by the clinic, including specific types of diagnostic examinations, laboratory tests, and emergency treatments.

Although clinic services may be furnished in the patient's home, in a nearby hospital or nursing home, or at other locations needed by the patient, the clinic must also have a facility where the patient can receive services. This may be in one or more buildings or structures, or it may be in a mobile unit.

A rural health clinic will be certified for participation in Medicare in accordance with the normal certification process.

Other requirements

The regulations contain several provisions relating to the organizational structure of the clinic, the development of the written patient care policies, the maintenance and confidentiality of patient records, and an annual evaluation of the clinic.

A clinic must be assisted in the development of its patient care policies by a group of health care professionals composed of one or more physicians and one or more nurse practitioners or physician assistants. At least one member of the group must be a health professional who is not a member of the clinic staff.

Key definitions

A nurse practitioner is defined as a registered professional nurse currently licensed to practice in the state, who meets the state requirements governing the qualifications of a nurse practitioner, and who meets additional educational requirements.

A physician assistant is defined as a person who meets the applicable state requirements governing the qualifications for assistance to primary care physicians and who meets other qualifications.

A rural health clinic is a clinic that is located in a rural area designated as a shortage area. It must not be a rehabilitation agency or a facility primarily for the care and treatment of mental diseases.

The clinic providing services is to be primarily engaged in providing outpatient health care services to persons of all ages. The clinic's health care services are to be furnished in accordance with appropriate written policies consistent with state law.

Direct services of the clinic's staff must be furnished for those diagnostic and therapeutic services and supplies that are commonly furnished in a physician's office or at the entry point into the health care delivery system. These include medical history, physical examination, assessment of health status, and treatment for a variety of medical conditions. The clinic must provide direct laboratory services and emergency services. The rules and regulations provide for handling of patient health records, protection of the information, retention of the records, and program evaluation of the clinic.

The law states that the terms physician assistant and nurse practitioner mean those who perform such services as such individuals are legally authorized to perform in accordance with state law and who

meet such training, education, and experience requirements prescribed by the HEW Secretary.

Rural health care clinics in Texas

In view of these requirements, the operation of rural health care clinics in Texas under certain circumstances may conflict with existing Texas law and regulations.

The Texas State Board of Medical Examiners has adopted rules regulating utilization of physician assistants. Article 4510, V.A.C.S., provides that a person shall be regarded as practicing medicine who shall "diagnose, treat or offer to treat any disease or disorder, mental or physical, or any physical deformity or injury, by any system or method and to effect cures thereof and charge therefor, directly or indirectly, money or other compensation . . ."

Penalties are prescribed for both a physicians who lawfully authorizes one not licensed by the Board of Medical Examiners to use his license to practice medicine and who aids and abets the practice of medicine by an unlicensed person, and to an unlicensed person who performs acts which constitute the practice of medicine.

The rules and regulations adopted by the Texas State Board of Medical Examiners require the supervising physician to be physically present or personally directing the physician assistant in any activity requiring direct patient care.

It appears that rural health clinics could not operate in Texas unless a physician is physically present at all times or, under an unusual circumstance, personally directing the physician assistant by direct communication.

Under the rules of the Board of Medical Examiners, a physician assistant could not be authorized to perform those required services independently as described by PL 95-210.

In the case of nurse practitioners, it appears that a rural health clinic operating with a physician present who remains available to see that the services called for are properly performed could operate in Texas. A nurse practitioner could perform certain services required by the legislation on an independent basis, but other services would require prescription by a physician.

However, when the physician is not present to provide medical direction, medical care services, consultation, and supervision, this could and would probably conflict with the Nurse Practice Act of Texas. Independent action by a nurse practitioner involving medical diagnosis or prescription of therapeutic or corrective measures would not be permitted by nurse practitioners in Texas.

Conclusion

Where a physician is the owner of a rural health clinic as defined by the law, it appears that a rural health clinic could be certified in Texas and operate consistent with Texas laws and regulations only if the clinic is directed by a physician physically present at all times during the delivery of primary health care at the clinic.

If a nurse practitioner or a physician assistant attempted to provide services from a rural health clinic when the licensed physician was absent during the delivery of primary health care, the physician who nominally supervised the treatment, the physician assistant, and the nurse practitioner might be subject to sanction.

Ace Pickens
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

Lifesaving Partnership... Against Cancer Quackery

The anguish associated with cancer is compounded by the cancer quack. False hopes—harmful delays—devastating expenses—deceptive diagnoses—loss of life—these are hazards facing the cancer patient desperate enough to seek a cancer quack.

The problem: how to divert the patient from this tragic encounter.

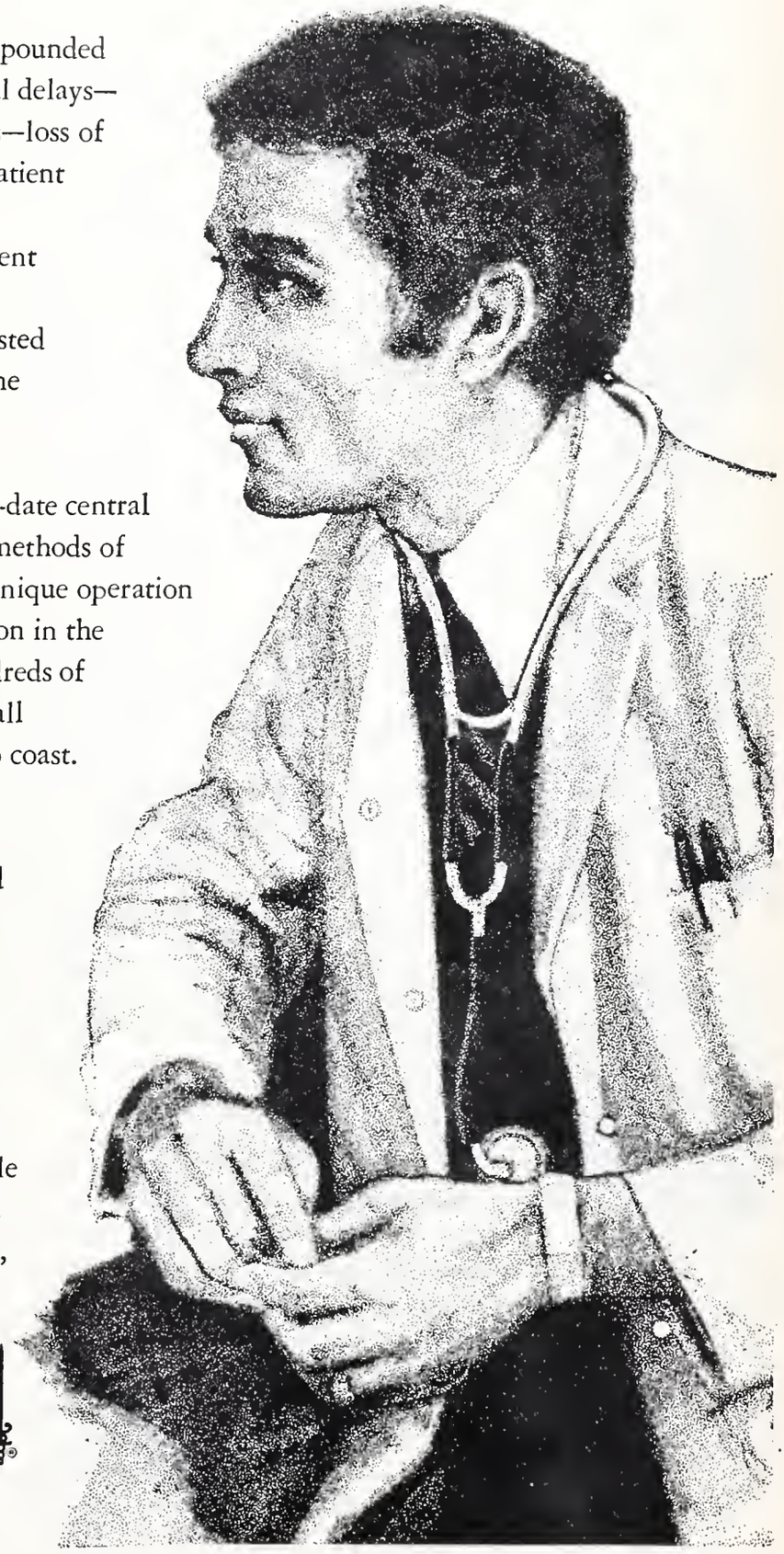
As medical guide, family counselor, trusted friend—you, *doctor,* play a major role in the fight against cancer quackery.

We are here to serve as your partner.

Our National Office maintains an up-to-date central clearinghouse for materials on unproven methods of cancer diagnosis and treatment. This is a unique operation and the principal source of such information in the country. Its services are widely used. Hundreds of inquiries are received and answered from all segments of the community, from coast to coast.

To trigger grass-roots action, we have formulated a model State Cancer Remedy Act designed to control the promotion and sale of unproven methods of cancer management. This has helped to inspire some 20 states to enact or consider legislation against cancer quackery—with active support from the medical community. Copies of the model act, as well as copies of laws in effect, are available through our National and Division offices.

In these actions against cancer quackery, as in all our efforts against cancer, ours is a lifesaving partnership.



American Cancer Society

Texas Division Inc.
P. O. Box 9863
Austin, Texas 78766

Medical Newsmakers

Frank Gardner, MD

Barbara H. Bowman, MD

Robert G. Grossman, MD

RUSSELL L. DETER, MD, has been named Outstanding Citizen of the Year by the El Paso Board of Realtors for his work with youth, health care, and the community. Dr Deter has served as medical consultant to the Narcotic Division of the El Paso Police Department, a member of drug abuse committees for the American Medical Association and Texas Drug Abuse Advisory Council, vice president of the Texas Medical Association, and a representative to the International Narcotics Enforcement Officers' Association.

M.T. JENKINS, MD, chairman of anesthesiology at Southwestern Medical School at Dallas, has been honored by the establishment of the M.T. Jenkins Professorship in Anesthesiology, a gift from the Eugene McDermott Foundation. Dr Jenkins is past president of the American Society of Anesthesiologists, Texas Society of Anesthesiologists, and Association of University Anesthetists. He serves on the American Medical Association's Interspecialty Advisory Board and is a member of the AMA House of Delegates and its Council on Medical Education.

G.V. BRINDLEY, JR, MD, has been elected president of the Scott and White Clinic in Temple. Dr Brindley is a senior consultant in general and thoracic surgery at Scott and White Clinic, Scott and White Memorial Hospital and Scott, Sherwood and Brindley Foundation. He is past president of the Texas Medical Association, Texas Surgical Society, and Southern Surgical Association. He serves as a member of the Coordinating Board, Texas College and University System, the Board of Governors of the American College of Surgeons, and the TMA Council on Medical Education and Hospitals.

DR FRANK GARDNER, professor of internal medicine and director of the hematology-oncology division at the UT Medical Branch, Galveston, will conduct a two-year study of a derivative of testosterone as a possible treatment for anemia in renal patients. He will conduct this program with AUGUST REMMERS, MD, and HARRY E. SARLES, MD, professors of internal medicine and co-directors of the adult nephrology division at the medical school.

DR BARBARA H. BOWMAN, Galveston, has received a grant from the National Heart, Lung and Blood Institute of the National Institute of Health to study a protein associated with cystic fibrosis. Dr Bowman is chairman and I. H. Kempner Professor of human biological chemistry and genetics at The University of Texas Medical Branch.

ROBERT G. GROSSMAN, MD, Galveston, has been elected for a third term as secretary of the American Epilepsy Society, appointed to the professional advisory board of the Epilepsy Foundation of America, and selected to serve on an advisory board of the National Institute of Neurological and Communicative Disorders and Stroke. Dr Grossman is professor and chief of the neurosurgery division at The University of Texas Medical Branch. He is a member of the American Association of Neurological Surgeons, American Electroencephalographic Society, Association for Research

in Nervous and Mental Disease, Society for Neuroscience, and Texas Association of Neurological Surgeons.

The Texas State Board of Medical Examiners has honored JOE G. RODARTE, MD, Temple, a former president of the board. He was a member of the state board for 26 years until his retirement in June 1977.

DUDLEY V. POWELL, MD, Dallas, has received the US Legion of Merit for his exceptional conduct in the performance of outstanding service at the 94th General Hospital in Mesquite where he served his entire reserve duty. Dr Powell is vice president of the Dallas County Medical Society.

The Houston Academy of Medicine has named the Jesse H. Jones Library building auditorium in Houston in honor of JAMES H. SAMMONS, MD, executive vice president of the American Medical Association. Dr Sammons is a former TMA president.

W. B. "BRYAN" DENMAN, MD, has been named Citizen of the Year by the Gonzales Chamber of Commerce for his great interest in the social improvement of Gonzales and economic progress of the community. Dr Denman has served as president of the Holmes Community Hospital Board and is chairman of the building committee for a new hospital.

The North Dallas Chamber of Commerce has presented an award of excellence to CHARLES MAX COLE, MD. Dr Cole, chief of surgery at Presbyterian Hospital of Dallas, is a member of the AMA Board of Trustees and former TMA president.

DR MARIO ZUCCA has been awarded a new postdoctoral fellowship by the McLaughlin Fellowship Committee at The University of Texas Medical Branch at Galveston. Dr Zucca will conduct a comparative study of human interferon systems.

The National Cancer Institute has invited STANLEY S. LEFKOWITZ, PHD, Lubbock, to serve on its Clinical Cancer Education Committee. Dr Lefkowitz is associate professor of microbiology and associate dean for graduate programs at Texas Tech University School of Medicine (TTUSM). He has recently been named chairperson of a new clinical cancer education committee at TTUSM.

HOLLIS E. BIVENS, MD, has been appointed head of the department of anesthesiology at The University of Texas M.D. Anderson Hospital and Tumor Institute. He succeeds William S. Derrick, MD, who retired after serving as head of the anesthesiology service since 1954. Dr Bivens comes to M.D. Anderson from Baylor College of Medicine where he served as director of anesthesiology at Ben Taub General Hospital and educational director of the Harris County Hospital District School for Nurse Anesthetists.

Medicine in literature

IN THE TMA LIBRARY

American Medical Association: *Nutrients in Processed Foods: Vitamins, Minerals.* Acton, Mass, Publishing Sciences Group, Inc, 1974.

American Medical Association: *Nutrients in Processed Foods: Proteins.* Acton, Mass, Publishing Sciences Group, Inc, 1974.

American Medical Association: *Nutrients in Processed Foods: Fats, Carbohydrates.* Acton, Mass, Publishing Sciences Group, Inc, 1975.

Bonica JJ, Albe-Fessard DG, Fink BR, et al (eds): *Advances in Pain Research and Therapy: Proceedings of the First World Congress on Pain.* New York, Raven Press, 1976, vol 1.

Burgess AW, Groth AN, Holmstrom LL, et al: *Sexual Assault of Children and Adolescents.* Lexington, Mass, Lexington Books, 1978.

Joint Commission on Accreditation of Hospitals: *Accreditation Manual for Hospitals: February 1978 Edition.* Chicago, Joint Commission on Accreditation of Hospitals, 1978.

Kobori T, Montagna W, Toda K, et al (eds): *Biology and Disease of the Hair.* Baltimore, University Park Press, 1976.

Meites S, Blumenfeld TA, Hicks JM, et al (eds): *Pediatric Clinical Chemistry: A Survey of Normals, Methods, and Instrumentation, with Commentary.* Washington, DC, American Association for Clinical Chemistry, Inc, 1977.

Salmon SE, Jones SE (eds): *Adjuvant Therapy of Cancer: Proceedings of the International Conference on the Adjuvant Therapy of Cancer held in Tucson, Arizona, USA, March 2-5, 1977.* Amsterdam, North-Holland Publishing Co, 1977.

Sweet WH, Obrador S, Martín-Rodríguez JG (eds): *Neurosurgical Treatment in Psychiatry, Pain, and Epilepsy.* Baltimore, University Park Press, 1977.

Texas Department of Public Safety: *Texas Drug Laws: Including Rules Relating to the Controlled Substances Act and Schedule of Penalties Relating to Controlled Substances.* Austin, Tex, Texas Department of Public Safety, 1977.

World Health Organization: *International Classification of Diseases for Oncology.* Geneva, World Health Organization, 1976.

IN THE FILM LIBRARY

Clinical Course on Maternal-Fetal Medicine, audiorecording by American College of Obstetricians and Gynecologists, produced by Audio-Digest Foundation. Glendale, Calif, Audio-Digest, 1977.

How to Deal with Sensitive Medical Staff Problems, audiorecording produced by Teach 'Em. Chicago, Teach 'Em, 1972.

Pathogenesis of Bacterial Diarrheas, audiorecording by American College of Physicians, produced by Audio-Digest Foundation. Glendale, Calif, Audio-Digest, 1977.

The Battered Child Syndrome, slide presentation by ten Bensel RW. New York, Medcom, 1971.

Clinical Radiology: For Internists and Primary Care Physicians, slide presentation, produced by Department of Radiology, Shadyside Hospital. Pittsburgh, Department of Radiology, Shadyside Hospital, 1977.

Computerised Tomography with the General Purpose Scanner (EMI), slide presentation by Kreel L. New York, Elsevier North-Holland, 1977.

The Lower Back Pain Syndrome, slide presentation by Johnston J. New York, Medcom, 1974.

Slides in Human Histology, slide presentation, edited by Hammersen F. Philadelphia, Lea & Febiger, 1976.

Topical Therapy: The Great Cutaneous Cover-up, slide presentation by Rasmussen J. Buffalo, NY, Communications in Learning, 1976.

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Deaths

Dr Abney

T.B. Abney, MD

Thomas Bertram Abney, MD, a Weatherford, Tex, general practitioner, died Dec 11, 1976.
Dr Abney, 73, was born in Rocky Springs, Miss. He was graduated from the University of Mississippi and the University of Tennessee College of Medicine (1930). He served his internship as a member of the US Marine Corps in New Orleans. He practiced in McComb, Miss, and Overton and Odessa, Tex, before moving to Weatherford.
Dr Abney was a member of Parker County Medical Society, Southern Medical Association, and the American Medical Association.
Surviving Dr Abney are his wife, Dorothy Mikles Abney, Booneville, Ark; sons, James Abney, Houston, and Tommy Abney, Fort Worth; and three sisters.

E.L. Aten, MD

Eugene Lester Aten, MD, 72, a Dallas psychiatrist, died May 21, 1977.
Dr Aten was a former director of the Dallas Child Guidance Clinic and a staff member at Children's Medical Center. He also was a clinical assistant professor of psychiatry at The University of Texas Health Science Center at Dallas.
The physician was born in Goodland, Kan. He was graduated from the University of Nebraska, Lincoln, in 1927 and completed his MD at the University of Nebraska, Omaha, in 1929. His internship was at Ancker Hospital, St Paul, Minn, and his residency was at Osawatomie (Kan) State Hospital. Dr Aten moved to Dallas in 1938, where he practiced until his retirement in 1975.
He was an honorary member of Texas Medical Association and the Dallas County Medical Society, and a member of the American Medical Association. He was a life fellow of the American Psychiatric Association.
Surviving Dr Aten are his stepmother, Mrs Fred Aten, and two grandsons.

T.C. Bobo, MD

Thomas Carroll Bobo, MD, died Jan 13, 1977. He was 77.
Dr Bobo, a Midland, Tex, general practitioner, was born in Rhome, Tex. He attended Decatur (Tex) Baptist College, and was graduated from Baylor University, Waco, in 1920. He completed his MD degree in 1925 at Baylor College of Medicine, Dallas. In 1927, Dr Bobo completed his internship and residency at Baylor Hospital, Dallas. He opened his Midland practice the same year.
The physician was elected to honorary membership in Texas Medical Association in 1971. He also was a member of the Midland County Medical Society and American Medical Association.
Surviving Dr Bobo are his wife; daughter, Betty Flores, Galveston; two brothers, and four sisters.

G.H. Brunner, MD

George Harmon Brunner, MD, a San Antonio ophthalmologist, died Oct 19, 1977. He was 79.
Dr Brunner was born in Colorado Springs, Colo. He received a bachelor of arts degree from Colorado College there in 1927 and a medical degree from the University of Colorado School of Medicine in 1928. He interned at Indianapolis City Hospital (1928-1930) and held a residency at Illinois Eye and Ear Infirmary in Chicago (1934-1936). His postgraduate study was at the University of Pennsylvania at Philadelphia.
His professional memberships included the American Ophthalmological Society, Bexar County Medical Society, and American Medical Association.

Surviving Dr Brunner are his wife, Robbie Neeley Brunner, MD, San Antonio; one sister, and several nieces and nephews.

F.F. Calderoni, MD

Francisco Froilan Calderoni, MD, 72, a Brownsville physician and civic leader, died March 28, 1977.
Dr Calderoni had practiced in Brownsville since 1935, and served as County Medical Officer, Public Health Officer, and City Medical Officer. He was a member of the board of trustees of the Brownsville Independent School District for four years.
Dr Calderoni was born in Matamoros, Mexico, and moved to Brownsville in 1913. He attended St Joseph's College there before entering Louisiana State University Medical Center, New Orleans. He received his MD in 1933 and served an internship and residency at Charity Hospital, New Orleans.
Dr Calderoni, a veteran of the armed forces, was a member of the American Medical Association and Cameron-Willacy County Medical Society and past president of Mercy Hospital's medical staff.
Survivors include Dr Calderoni's wife, Bertha Cardenas Calderoni, and daughter, Maria Claudia Calderoni, Brownsville; son, Francisco Calderoni Cardenas, Matamoros; two sisters, two brothers, and numerous nieces and nephews.

G.M. Cargill, MD

George Michael Cargill, MD, 31, died Oct 4, 1977 in San Antonio from injuries received in a traffic accident.
A native of Piggott, Ark, Dr Cargill was a graduate of the University of Arkansas School of Medicine. His internship was at Ben Taub General Hospital in Houston.
Dr Cargill's professional memberships included Bexar County Medical Society, American Medical Association, and American Academy of Family Physicians.
He is survived by his wife, Barbara Davis Cargill; son, Michael Scott Cargill; and daughter, Heather Lea Cargill, all of San Antonio; father, Calvin L. Cargill, Piggott, Ark; brother, Calvin L. Cargill, Jr, Houston; and sisters, Mrs Carol Sutcliff, Springfield, Mo; and Kay Cargill and Rebecca Cargill, both of Piggott, Ark.

Dr Calderoni

G.W. Day, Sr, MD

Giles Warren Day, Sr, MD, a retired Fort Worth physician, died Nov 13, 1977. He was 85.
During 51 years of medical practice, Dr Day was superintendent of the Galveston State Psychopathic Hospital, operated the Psychiatric Department at Harris Hospital, Fort Worth, and operated his own psychiatric clinic.
Dr Day, the grandson of G. H. Day, the second mayor of Fort Worth, also taught for several years at Texas Christian University and was the author of three books of poetry.
A native of Fort Worth, Dr Day received his MD from Texas Christian University in 1915. He interned at St Joseph Hospital and did postgraduate work at Harvard University Medical School.
Dr Day's professional memberships included the American Medical Association, Tarrant County Medical Society, Southern Medical Association, American Psychiatric Association, and Texas Neuropsychiatric Association. He was a charter member and first president of the Southern Psychiatric Association.
Survivors include his wife, Violet Selman Day, Fort Worth; daughters, Annie Lou Ohlsen, Joshua, Tex, and Kathleen Wynne Day, Fort Worth; four grandchildren, and two great-grandchildren.

Dr Cargill

Dr Day

A.L. Delaney, Sr, MD

Albert Lindsay Delaney, Sr, MD, FICS, a Liberty, Tex, surgeon and civic leader, died May 15, 1977.

Dr Duckett

Dr Delaney, a fourth generation physician, had served as trustee and senior steward of Liberty's First United Methodist Church and as president of the Liberty School Board, Chamber of Commerce, and the Liberty-Chambers County Medical Society.
At the time of his death, he was Liberty County Health Officer, a director of the First State Bank of Liberty, and vice-president of the Atascosito Historical Society.
Dr Delaney was born in Greenville, Tex, and was a 1926 graduate of Southwestern Louisiana Institute. He worked briefly as a school teacher and structural iron worker and superintendent before entering Baylor Medical College, Dallas. He received his MD in 1931. His internship was at St Paul Hospital, Dallas, and his residency was at the US Marine Hospital in New Orleans.
He was a member of the American Medical Association and the International College of Surgeons.
Surviving Dr Delaney are his wife, Ada Fay Marsh Delaney; son, Albert Lindsay Delaney, Jr, DDS; daughter, Mrs T. Deen Wood, all of Liberty; one brother, and five grandchildren.

W.T. DeTar, Jr, MD

Webb Theodore DeTar, MD, Victoria, Tex, died April 17, 1977, in a Houston hospital.
Dr DeTar, 48, was chairman of the board of trustees of DeTar Hospital, which was founded by his father. He also served on the advisory board of the Hospital Corporation of America and was president of the Victoria-Calhoun-Goliad County Medical Society in 1972.
The urologist was a native and life-time resident of Victoria and a graduate of Texas A&I University and Baylor College of Medicine. His internship and residency were at Hermann Hospital, Houston.
Dr DeTar's professional memberships included the American Medical Association, Southern Medical Association, and American Urological Association.
He also was president of the Victoria Regional Museum and a director of the Friends of Victoria Public Library.
Surviving Dr DeTar are his mother, Mrs W. T. DeTar, Victoria; two sisters, three nieces, and three nephews.

J.W. Duckett, MD

John Warner Duckett, a Dallas surgeon, died Nov 7, 1977. He was 76.
A pioneer of "blue baby surgery" in Dallas, Dr Duckett was long-time chief of surgery at Baylor University Medical Center. He was a clinical associate professor at Baylor College of Medicine from 1930 to 1942 and a clinical professor of surgery at The University of Texas Southwestern Medical School.
A native of Florence, Ala, Dr Duckett spent his youth in Houston. He was graduated by The University of Texas at Austin in 1922. After receiving his MD degree from Johns Hopkins University School of Medicine, Baltimore, in 1926, he completed graduate training at Johns Hopkins and Boston Children's Hospitals, and St Paul Hospital, Dallas. He began his general surgery practice in 1930.
Dr Duckett's professional memberships included the Southern Surgical Association, Texas Surgical Society, Johns Hopkins Medical and Surgical Society, Dallas Pediatric Society, American Medical Association, and the Texas and Dallas Heart Associations. He held numerous positions in the Dallas County Medical Society and was a past president of the Dallas Southern Clinical Society.
Surviving Dr Duckett are his wife, Carolyn Knorr Duckett, and daughter, Ann Reed, Dallas; son, John W. Duckett, Jr, MD, Philadelphia; one brother, one sister, and four grandchildren.

T.J. Elliott, MD

Thomas John Elliott, MD, Odessa, died March 26, 1977, after a lengthy illness.
Dr Elliott, a native of Alberta, Canada, had practiced in Odessa since 1955, and was a member of Texas Medical Association 24 years. Before moving to Odessa, he practiced in Canada and in Houston at Hermann Hospital.
The anesthesiologist received his MD from Queen's University, Kingston, Ontario, in 1938. His internship and residency also were in Canada. After completing his medical training, Dr Elliott entered the Royal Canadian Medical Corps to serve as lieutenant colonel during World War II.
His professional memberships included the American Medical Association, Andrews-Ector County Medical Society, Texas Society of Anesthesiologists, and Canadian Medical Association.
Surviving Dr Elliott are his wife, Margaret Lucille Gerron Elliott, Odessa; two brothers, and three stepsons.

T.G. Estes, MD

Ted Ghent Estes, MD, a retired eye, ear, nose, and throat specialist, died May 26, 1977.
Dr Estes, 76, practiced in Waxahachie from 1930 until his retirement in 1968. He was born in Italy, Tex, in 1900, and moved to Waxahachie in 1912. He was a 1921 graduate of Trinity University, and completed his MD at The University of Texas Medical Branch in 1927. His internship was at the US Marine Hospital, New Orleans.
An honorary member of Texas Medical Association, Dr Estes also served as secretary of the Ellis County Medical Society from 1936 through 1942, and in 1945. He was president of the society in 1943. He also was a member of the American Medical Association. During World War II, he was a member of the Public Health Service.
Surviving Dr Estes are his wife, Ruth Chapman Estes, Waxahachie; sons, John L. Estes, Dallas, and William C. Estes, Bonham, Tex; sisters, Marie Estes and Carey Estes, Dallas; and four grandchildren.

G.L. Farrell, MD

Gordon Lee Farrell, 52, died April 16, 1977, in Houston.
Dr Farrell, an endocrinologist, had lived in Houston since 1965. He practiced, taught, and conducted research in Cleveland, Ohio, from 1951 through 1965 and was a member of the US Public Health Service in New Orleans and Washington, DC. After moving to Texas, he joined the staffs of the Texas Research Institute of Mental Sciences, and Richmond State School for the Mentally Retarded. After moving to Houston, he was a professor of mental sciences at The University of Texas Graduate School of Biomedical Sciences and associate professor of biochemistry and psychiatry at Baylor College of Medicine.
The physician's professional memberships included Harris County Medical Society and American Medical Association.
Surviving Dr Farrell are his sons, Michael G. Farrell, Phoenix, Ariz; and David B. Farrell, Oakland, Calif; daughters, Elizabeth Farrell, Mary Farrell, and Ruth Farrell, all of Cleveland, Ohio; and several brothers and sisters.

G.C. Fox, MD

Grover Cleveland Fox, MD, 87, died Dec 10, 1977, in Childress, Tex.
The retired physician was a native of Granada, Miss. He moved to Childress County in 1905. In 1917, he was graduated from Baylor College of Medicine and served internships at Baylor and St Paul Hospitals in Dallas. He was a physician in the US Army during World War I and served as a general practitioner in Childress from 1923 until his retirement in 1976.

Dr Fox

Dr Franke

Dr Fox's professional memberships included the Armstrong-Donley-Childress-Collingsworth-Hall-Wheeler (Greenbelt) County Medical Society, American Medical Association, and the American Academy of Family Physicians.
Surviving the physician are his wife, Katherine Johnston Fox, and son, Jack F. Fox, MD, Childress; and two grandchildren.

W.I. Franke, MD

Winthrop Ingersoll Franke, MD, San Antonio, died April 3, 1977.
Dr Franke, 65, had practiced pediatrics in San Antonio for more than 30 years. He was born in Smithville, Tex, and was graduated from Johns Hopkins University (1934) and Harvard University Medical School (1938). His internship and residency were at Infants' and Children's Hospitals, Boston. Dr Franke practiced in Mexico City for two years before moving to San Antonio in 1945.
His professional memberships included Bexar County Medical Society and the American Medical Association.
Survivors include Dr Franke's wife, Mary Fitzgerald Franke, and daughter, Carolyn Franke, San Antonio; sons, Paul C. Franke, Norfolk, Va, and Stephen H. Franke, Fayetteville, NC, and one granddaughter.

R.F. Gossett, MD

Robert Francis Gossett, MD, 67, died Nov 7, 1977, in San Antonio.
A resident of San Antonio since 1935, he was past president of the Bexar County Medical Society, the Medical Assembly, and the South Texas Regional Blood Bank. He had been chief of staff at Baptist Memorial Hospital and had served as physician for Boysville for 20 years.
A native of Dallas, Dr Gossett was graduated from The University of Texas at Austin in 1931 and from The University of Texas Medical Branch in Galveston in 1934. His internship was at Baptist Memorial Hospital in San Antonio. During World War II, he was a major in the Army Air Corps.
Professional memberships included the American Medical Association, American College of Surgeons, International College of Surgeons, and Southwestern Surgical Congress.
Surviving are his wife, Anne Donnell Gossett, San Antonio; son, Robert F. Gossett, Jr, New York; daughter, Elizabeth Gossett Hensey, San Antonio; and five grandchildren.

J.F. Hairston, MD

John Frank Hairston, MD, a Houston anesthesiologist, died Nov 18, 1977. He was 60.
A resident of Houston for 57 years, Dr Hairston was a founder of Park Plaza Hospital and Professional Building.
He was a native of Timpson, Tex. In 1939, he was graduated from Rice University, and in 1944, received his MD degree from The University of Texas Medical Branch, Galveston. He interned at Hermann Hospital in Houston (1944-1945); he held residencies at Hermann Hospital (1945-1946) and at Presbyterian Hospital in New York (1954-1955).
Dr Hairston's professional memberships included the Harris County Medical Society, Houston Surgical Society, Texas Society of Anesthesiologists, and American Society of Anesthesiologists.
Survivors include Dr Hairston's wife, Mary Godman Hairston, and sons, John F. Hairston, Mark M. Hairston, and Matthew R. Hairston, all of Houston.

A.A. Hall, MD

Augustus Alonzo Hall, MD, a retired gastroenterologist, died April 8, 1977, in San Antonio.

Dr Hall, 74, was in the US Army Medical Corps from 1942 until 1958. He retired with the rank of colonel and opened a private practice in San Antonio. He retired from private practice in 1971.
The physician was born in Westerville, Ohio. He was a 1926 graduate of Ohio State University, and a 1928 graduate of The Ohio State University College of Medicine. His internship was at Grant Hospital, Columbus, Ohio. He was in private practice in Columbus for 13 years before entering the Army.
Dr Hall's professional memberships included the American College of Physicians (fellow), Texas Society of Internal Medicine, Texas Rheumatism Association, Bexar County Medical Society, Royal Academy of Medicine, and American Medical Association.
Survivors include Dr Hall's wife, Sarah Jamieson Hall, San Antonio; son, Augustus A. Hall, Jr, MD, Lt Col, MC, USA, Ft Benning, Ga; A. L. Jamieson Hall, Maj, USA, Ft Leavenworth, Kan; and six grandchildren.

Wendell H. Hamrick, MD

Wendell Holmes Hamrick, MD, Houston, died following heart surgery Feb 7, 1978.
Dr Hamrick received Texas Medical Association's highest honor, the Distinguished Service Award, in September 1977 in recognition of his many years of dedicated service to the public and the medical profession.
Dr Hamrick, 71, served as Speaker and Vice-Speaker of TMA's House of Delegates and was a past chairman of the Board of Councilors. He also served on the Texas Air Control Board and was a past president of the Harris County Medical Society and Texas Industrial Medical Association. He was a fellow of the American College of Surgeons and a member of the American Medical Association and Southwestern Surgical Congress.
A native of Saucier, Miss, Dr Hamrick attended high school in Houston. He was graduated from Rice University in 1929, and from The University of Texas Medical Branch, Galveston, in 1934. His postgraduate training in Houston included internships at Jefferson Davis Hospital and Memorial Baptist Hospital and a residency at Southern Pacific Hospital. He also studied surgery at the University of Pennsylvania Graduate School of Medicine.
Dr Hamrick is survived by his wife, Thelma Valentine Hamrick, Houston; son, Wendell H. Hamrick, Jr, Seabrook, Tex; and daughter, Emily Hamrick Moreland, Austin.

Dr Hall

Dr Hamrick

Dr Hedge

R.H. Hedge, Jr, MD

Raymond Harvey Hedge, Jr, MD, a Tyler surgeon, died March 24, 1977. He was 47.
Dr Hedge was a native of Tyler, and had practiced there since 1962. He was graduated from Rice University in 1950, and received his medical education at Duke University College of Medicine, Durham, NC. His internship was at Jefferson Davis Hospital, Houston (1954-1955), and his residency was with Baylor University Affiliated Residencies.
Dr Hedge's professional memberships included Smith County Medical Society and the American Medical Association.
Surviving the physician are his wife, Del Rose Birdsong Hedge; son, Raymond Hedge III; daughters, Carolyn Hedge and Hollee Hedge, and parents, all of Tyler; and one brother.

F.P. Helm, MD

Fred Power Helm, MD, a retired Austin physician, died April 2, 1977. He was 79.
Dr Helm, a native of Ashland, Va, had lived in Austin since 1942. He was a past director of the Division of Crippled Children's Services and chief of the Section of Special Health Services of the Texas State Depart-

Dr Helm

Dr Hollar

Dr Jones

Dr King

ment of Health. He had been involved in public health since 1926.
The doctor attended Ohio University and was graduated from the University of Louisville School of Medicine. His internship was at City Hospital, Louisville, and he completed a pediatrics residency at University of Oklahoma Hospital, Oklahoma City. He received his Master of Public Health degree from the University of Michigan in 1941.
Dr Helm's professional memberships included the Southern Medical Association, American College of Preventive Medicine, Association of Public Health Physicians, Travis County Medical Society, and American Medical Association.
Surviving Dr Helm is his wife, Zoe Helm, Austin.

E.D. Hollar, MD

A long-time Vernon, Tex, physician, Emory Dallas Hollar, MD, died Nov 15, 1977.
Dr Hollar, 66, a native of Wilbarger County, Tex, attended Vernon schools and Texas Tech University. He was graduated from The University of Texas Medical Branch at Galveston. He served a residency in internal medicine and cardiology at Emory University at Atlanta, Ga, and returned to Vernon to practice in 1937.
Dr Hollar's professional memberships included the American College of Physicians (fellow) and Wilbarger County Medical Society.
Surviving Dr Hollar are his wife, Minerva Rhoads Hollar, Vernon; daughters, Dianne Miller and Brenda Mason, San Diego, Calif, and Pamela Ryan, Torremolinos, Spain; one brother, four sisters, and three grandchildren.

M.A. Jones, MD

Malcolm Amos Jones, MD, 81, died Oct 27, 1977, in Baytown.
Dr Jones, a native of Joshua, Tex, had practiced in Baytown since 1945. He attended Southern Methodist University during 1915-1917. In 1922, he received his MD degree from The University of Texas Medical Branch at Galveston. He remained in Galveston to serve an internship at St Mary's Infirmary.
Dr Jones served as a colonel of the US Army Medical Corps during World War II and was awarded two bronze stars.
His professional memberships included the American Medical Association, East Harris County Medical Society, and American Academy of Family Physicians.
Dr Jones is survived by his wife, Mae Hickman Jones; sons, Malcolm A. Jones II and Stephen Hickman Jones; daughter, Karen Lea McNeil; one sister and two brothers.

G.A. King, MD

Gerald Atherton King, MD, an honorary member of Texas Medical Association, died Oct 1, 1977, in Fort Worth. He was 76.
The physician had practiced in Fort Worth for 32 years. He retired from general family practice in 1974.
A native of San Antonio, Dr King was graduated from the College of Medical Evangelists in Loma Linda, Calif, in 1931. His residency was at Nix Memorial Hospital in San Antonio. Before moving to Fort Worth, he practiced in Smiley, Cuero and Cleburne, Tex.
Dr King was a member of the American Medical Association and a life member of the Tarrant County Medical Society. He was a past secretary (1942-1943) and president (1937) of the DeWitt-Lavaca County Medical Society.
Surviving are Dr King's wife, Lila Evans King, Fort Worth; daughter, Mrs Eva Loutzenhiser, Austin; sons, Dr Gerald A. King, Jr, Austin, and C. Lawrence King, Riverside, Calif; one sister, one brother, and three grandchildren.

R.H. Kirkpatrick, MD

Roy Hamilton Kirkpatrick, MD, a Taylor, Tex, physician for 31 years, died June 18, 1977, at the age of 61.
Dr Kirkpatrick, a general practitioner, was a native of Cameron, Tex. He attended Southwestern University, Georgetown, Tex, and The University of Texas, Austin. After receiving his BA in 1939, he began his medical education at UT Medical Branch, and received his MD in 1942. He was an intern in Galveston and at Hermann Hospital, Houston.
His professional memberships included the American Medical Association and Williamson County Medical Society.
Surviving Dr Kirkpatrick are his wife, Bette Eubank Kirkpatrick, and son, Bill Kirkpatrick, Taylor; three sisters, and three grandchildren.

H.M. Little, MD

Harry Morrow Little, MD, 79, died Oct 1, 1977. He had been a resident of Houston since 1949 and served as director of the Child Guidance Center there until his retirement in 1966.
A native of Austin, Dr Little was graduated from The University of Texas in 1922. In 1926, he received his MD from UT Medical Branch in Galveston. He served an internship at City Hospital in Cleveland. His residencies were at Pennsylvania Hospital in Philadelphia and the Institute for Child Guidance in New York.
Dr Little's professional memberships included the Houston Psychiatric Society, Harris County Medical Society, Texas Neuropsychiatric Society, American Psychiatric Association, American Orthopsychiatric Association, and American Academy of Child Psychiatry.
Surviving are Dr Little's wife, Porter Lou Calhoun Little, Houston; daughter, Mrs Thomas L. Goode, Wilmington, Del; sons, William Bart Little, Richmond, Tex, and Harry M. Little, Jr, MD, La Marque, Tex; one sister, nine grandchildren, and one niece.

D.S. Marsalis, MD

Don S. Marsalis, MD, a long-time Amarillo physician, died Oct 31, 1977. He was 78. The retired physician had practiced in Amarillo since 1924 and had been on the staffs of all hospitals there.
Dr Marsalis was a native of Athens, La. He was graduated from Tulane University School of Medicine in 1921. His internship and residency were at Charity Hospital in Shreveport, La. Other postgraduate training included work at Massachusetts General Hospital, Boston, and Los Angeles County Hospital.
Dr Marsalis was a member of the Panhandle District Medical Society and the American Medical Association, and a fellow of the American College of Surgeons. He also served on a number of committees for the Potter-Randall County Medical Society.
The physician is survived by his son, Don S. Marsalis, Jr, Amarillo; four grandchildren and three great-grandchildren.

L.B. Reppert, MD

Dr Reppert

Lawrence Berkley Reppert, MD, San Antonio, died June 3, 1977. He was 64.
Dr Reppert was a former chief of staff at Robert B. Green Memorial Hospital and past president of the Bexar County Medical Society. He had practiced in San Antonio since 1946.
The internist was born in Des Moines, Iowa. He was graduated from the New Mexico Military Institute before entering State University of Iowa College of Medicine in 1933. He completed his MD in 1938. Dr Reppert's internship was at Broadlawns Polk County Hospital, Des Moines, Iowa, and he was a resident at Nix Memorial Hospital, San Antonio.

Dr Robison

Dr Rosenbloom

Dr Stephen

Dr Reppert's professional memberships included the American Medical Association, Texas Society of Internal Medicine, and the American College of Physicians.
Surviving the physician are his wife, Mae B. Reppert; son, Bruce G. Reppert; daughters, Mrs. Edward E. Koplan and Salley Reppert Trimble, all of San Antonio, and four grandchildren.

E.J. Robison, Jr, MD

Elmo J. Robison, Jr, MD, 40, died May 12, 1977.
Dr Robison, an Air Force major, had been in private practice in San Antonio since 1973. He previously was on the staff of Wilford Hall USAF Medical Center.
The anesthesiologist was born in Hugo, Okla. He attended the University of Tennessee before beginning his medical education at the University of Oklahoma School of Medicine. He received his MD in 1967. His internship was at St Anthony Hospital, Oklahoma City, and he held residencies at the Veterans Administration Hospital, Oklahoma City, and Wilford Hall USAF Medical Center, San Antonio.
Dr Robison's professional memberships included the Texas Society of Anesthesiologists, American Society of Anesthesiologists, Society of Air Force Clinical Surgeons, Air Force Society of Anesthesiologists, Bexar County Medical Society, and American Medical Association.
Surviving Dr Robison are his wife, Marilyn Dodd Robison; sons, Elmo Robison III and Gregory Robison; and daughter, Elizabeth Robison, all of San Antonio; mother, Doris L. Robison, Oklahoma City; brothers, Rance Robison, Wagoner, Okla, and Clarence Robison, Oklahoma City; and sister, Jean Snyder, Martinez, Calif.

J.L. Rosenbloom, MD

Joseph L. Rosenbloom, MD, a Trinidad, Tex, family practitioner, died April 5, 1977. Cause of death was leukemia.
Dr Rosenbloom, 65, had served the citizens of Trinidad and Malakoff since 1946. He was an active member of Henderson County Medical Society, having been president and a member of the board of censors and numerous other appointed committees. He became an honorary member of Texas Medical Association in 1976.
The physician also was a civic leader. He organized and was first president of the First State Bank of Trinidad and was a director of Henderson County Savings and Loan.
Dr Rosenbloom was a native of Rankin, Pa. He was graduated from the University of Pittsburgh in 1933 and from the Chicago Medical School in 1938. He moved to Austin in 1938 to serve his internship and residency at Brackenridge Hospital.
Surviving Dr Rosenbloom are his son, Sam Rosenbloom, and daughter, Jennie Sue Rosenbloom, Athens, Tex; two brothers, two sisters, and two half-sisters.

J.J. Stephen, MD

James John Stephen, MD, Robstown, died April 8, 1977, after a short illness.
Dr Stephen, a family physician, retired one week before his death. He practiced in Robstown 33 years. Before moving there in 1944, he had practiced in Lometa and Goldthwaite, Tex.
A native of Stephenville, the doctor received his BA and MA degrees from The University of Texas. He completed his medical education at Tulane University School of Medicine in 1934. His internship was at King's Daughters Hospital, Temple, Texas.
Dr Stephen's professional memberships included the Brown-Mills-San Saba and Nueces County Medical Societies and American Medical Association.
He also served on the Robstown School Board and was a long-time member and past president of the Lions Club.

Surviving Dr Stephen are his wife, Roberta Mayo Stephen, Robstown; daughter, Mrs W.B. Little, Richmond, Tex; son, James Robert Stephen, Humble, Tex; sisters, Ethel Pond, Fort Worth, and Edith Hays, Stephenville; and three grandchildren.

R.S. Sutton, Sr, MD

Robert Spashe Sutton, Sr, MD, of Center Point, Tex, died March 11, 1977. He was 90.

Dr Sutton practiced in Bartlett, Tex, for 34 years. He was president of the school board and a city health officer there for 32 years. Dr Sutton moved to New Mexico in 1946 and was instrumental in building a hospital in Ruidoso in 1949. He practiced in Sierra Blanca, Tex, from 1950 through 1953, and moved to San Antonio in 1953. He operated the San Juan Clinic in San Antonio for seven years after his retirement in 1957.

The physician was born in Georgia. Dr Sutton worked as a school teacher, bookkeeper, and railroad fireman before entering The University of Texas Medical Branch. He received his MD degree in 1911, and joined the staff of Scott and White Hospital in Temple.

Dr Sutton's professional memberships included Bexar County Medical Society and the American Medical Association.

Surviving are Dr Sutton's wife, Idell Lasiter Sutton, Center Point; sons, Robert S. Sutton, MD, San Antonio, and Arthur Sutton, Center Point; daughter, Ann Metzler, Houston; and brother, George Sutton, Rusk.

J.S. Terry, MD

Jack Stanford Terry, MD, 84, died in Dallas May 22, 1977.

Dr Terry had been the only practicing physician in Kemp, Tex, since 1965. He practiced in Dallas 12 years and as a Naval officer 37 years before moving to Kemp. Born in Kaufman County, Tex, in 1893, Dr Terry attended Trinity University in Waxahachie, Tex. He was graduated from The University of Texas Medical Branch in 1917.

Dr Sutton

Dr Terry entered the Navy after his graduation from medical school. He was awarded the Navy Cross for his work against the spread of malaria and retired as a rear admiral.

The physician was a member of Dallas County Medical Society and the American Medical Association and a fellow of the American College of Surgeons.

Surviving Dr Terry are his son, Jack Terry, Jr, Dallas; brother, Joseph G. Terry, Auburn, Ala; sister, Eugenia Terry, Dallas; two grandchildren, and one great-grandchild.

O.H. Timmins, Jr, MD

Oliver Hazard Timmins, Jr, MD, former Chief of Staff at Baptist Memorial Hospital in San Antonio, died April 15, 1977. He was 61.

Dr Timmins was a native of San Antonio, and had practiced there 31 years. He was a graduate of The University of Texas at Austin, and UT Medical Branch, Galveston. His internship was at Robert B. Green Memorial Hospital, San Antonio. He served his residency while on active duty with the US Air Force in the Pacific.

His professional memberships included the Bexar County Medical Society, American Medical Association, American Occupational Medical Association, and Southern Medical Association.

Surviving Dr Timmins are his wife, Joan James Timmins; sons, Oliver H. Timmins III and James Rooper Timmins; daughter, Joan Elizabeth Timmins; and stepmother, Mrs O.H. Timmins, Sr, all of San Antonio.

IN MEMORIAM

The Memorial Library of the Texas Medical Association stands as a permanent memorial to physicians who have served their patients, their profession and the people of Texas so faithfully over the years.

The Library ranks as one of the finest in the nation. It is providing more than 10,000 reference requests, 3,500 tapes and cassettes, and 2,500 films each year to physicians, students, and to those seeking information related to medicine and health care. The resources of the Library include 60,000 volumes, 400 tapes, and 300 scientific and lay films; more than 1,300 professional journals are received monthly. Services are provided without charge.

Contributions to the Texas Medical Memorial Library Fund are invested in a permanent fund and are managed by the Board of Trustees of the Texas Medical Association. Dividends are used to purchase new books and to operate the Library.

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Dallas, 1905-1977

T.C. BOBO
Midland, 1898-1977

G.H. BRUNNER
San Antonio, 1902-1977

F.F. CALDERONI
Brownsville, 1904-1977

G.M. Cargill
San Antonio, 1945-1977

G.W. DAY, SR
Fort Worth, 1892-1977

A.L. DELANEY
Liberty, 1904-1977

W.T. DeTAR
Victoria, 1928-1977

J.W. DUCKETT
Dallas, 1901-1977

C.J.I. EKMAN
Bastrop, 1899-1977

T.J. ELLIOTT
Odessa, 1911-1977

T.G. ESTES
Waxahachie, 1900-1977

G.L. FARRELL
Houston, 1925-1977

G.C. FOX
Childress, 1890-1977

W.I. FRANKE
San Antonio, 1911-1977

R.F. GOSSETT
San Antonio, 1910-1977

J.F. HAIRSTON
Houston, 1917-1977

A.A. HALL
San Antonio, 1902-1977

R.H. HEDGE, JR
Tyler, 1929-1977

R.P. HELM
Austin, 1897-1977

E.D. HOLLAR
Vernon, 1911-1977

M.A. JONES
Baytown, 1896-1977

G.A. KING
Fort Worth, 1901-1977

R.H. KIRKPATRICK
Taylor, 1916-1977

H.M. LITTLE
Houston, 1898-1977

D.S. MARSALIS
Amarillo, 1898-1977

L.B. REPPERT
San Antonio, 1913-1977

E.J. ROBISON, JR
San Antonio, 1936-1977

JOSEPH ROSENBLOOM
Athens, 1911-1977

J.J. STEPHEN
Robstown, 1902-1977

R.S. SUTTON, SR
Center Point, 1886-1977

J.S. TERRY
Kemp, 1893-1977

O.H. TIMMINS, JR
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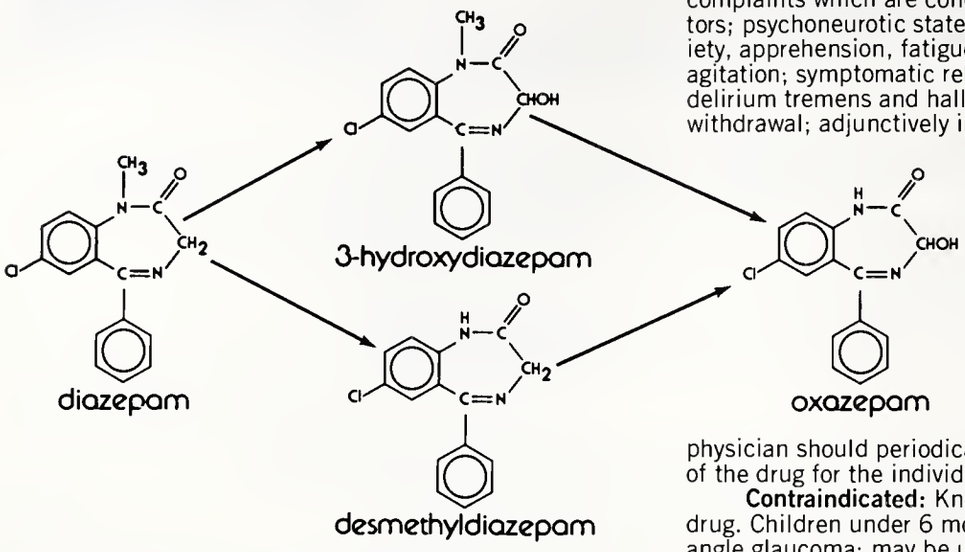

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The effectiveness of Valium (diazepam) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Sidney A. Worsham, III, M.D.
Box 11340, 1415 Pennsylvania Ave., Fort Worth, Texas 76109
817 336-5711

H. M. GIBSON, JR., M.D., F.A.C.S.
ABEL GARDUNO, M.D.
Certified by American Board of Urology
Practice Limited to Urology
512 University Towers Bldg., 1900 N. Oregon St., El Paso, Texas
Telephone 532-8130 & 533-4765

MARVIN GREER RAPE, M.D.
NEWTON F. McDONALD, M.D.
JAMES E. MORNEAU, M.D.
Practice Limited to Urology
1703 St. Joseph Prof. Bldg., 2000 Crawford, Houston, Texas 77002

DONALD J. NEESE, M.D.
Diplomate of American Board of Urology
Practice Limited to Urology
570 Park Plaza Professional Building
1213 Hermann Drive, Houston, Texas 77030; 713 524-3931
400 Medical Center Blvd., Suite 207, Webster, Texas 77598;
713 332-2466

EUGENE R. TODD, M.D., P.A.
Diplomate of the American Board of Urology
Fellow of the American College of Surgeons
Fellow of the Society for Pediatric Urology
Urology—Adult and Pediatric
3434 Swiss Ave., Suite 406, Dallas, Tex. 75204, 214 826-3500

DALLAS UROLOGY ASSOCIATES
David D. Reisman, M.D.
Donald J. Logan, M.D.
Allen S. Plotkin, M.D.
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MAKE YOUR PLANS NOW TO ATTEND THESE TMA MEETINGS IN 1978

- 111th Annual Session
  May 10-14, San Antonio
- Conference on Medical Service
  September 23, Austin

Classified Advertising

Physicians Wanted

WANTED ORTHOPEDIC SURGEON TO JOIN multispecialty clinic with facilities for doing all types of surgery in new hospital as well as office in new clinic building. Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED ONE OR TWO BOARD ELIGIBLE FAMILY PRACTITIONERS to come into a growing multispecialty clinic. Many benefits that only a group practice can provide. Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED BOARD ELIGIBLE OB-GYNECOLOGIST to join two others in the department with all new facilities in hospital and clinic. Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: ANESTHESIOLOGIST to join growing multispecialty clinic with excellent facilities. New clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: OPHTHALMOLOGIST TO JOIN growing multispecialty clinic with excellent facilities. New clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: INTERNIST, preferably with subspecialties in gastroenterology, pulmonary diseases, rheumatology or cardiology to join growing multispecialty clinic. Excellent facilities in new clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

PHYSICIAN AND PSYCHIATRISTS—general practice, pediatricians and psychiatrists for vacancies in state mental hospitals and state schools for mentally retarded. Salaries: $31,000 to $38,000 plus $1,000 for board certification plus up to $3,000 supplement in certain areas; usual State benefits. Liability protection provided under Texas law. Texas license or reciprocity required. Contact the Personnel Specialist, Texas Department of MHMR, P.O. Box 12668, Capitol Station, Austin, Texas 78711. 512-454-3761. An equal opportunity, affirmative action employer.

NEAR GULF COAST: Several specialties including family practice. Two accredited district hospitals, 1968 additions. Excellent potential to double present staff of 20. Offices available. Great rural place to raise family. Water recreation, hunting. 75 miles west of Houston. Steve Walters, Administrator, Box 910, Bay City, Texas 77414, 713-245-6383.

WANTED: PEDIATRICIAN to join growing multispecialty clinic with excellent facilities. New Clinic building adjacent to new hospital. Many benefits that only a group practice can provide. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

EMERGENCY DEPARTMENT GROUP, HOUSTON AREA, EXPANDING—choice of salary or fee-for-service with guarantee—malpractice paid—Call 713-861-7942 or write Greater Houston Emergency Physicians Association, 625 West 19th, Houston, Texas 77008.

FAMILY PRACTICE—In small city South Central Texas; San Antonio, Austin area. Drawing area 22,000. 50-bed new hospital under construction. Financial assistance available. William B. Watts, Administrator, Gonzales County Hospital District, Gonzales, Texas 512-672-2811.

FAMILY PRACTICE, GENERAL PRACTICE—Wanted immediately to join physician staff in rural community one-hour from Dallas-Fort Worth area. Extremely active practice with good benefits and an opportunity to enter into the corporation. Practice is with physicians clinic, 26-bed hospital, and 42-bed nursing home within the same building complex. Excellent arrangement for family practice. For further information contact Roger E. Marks, M.D., 817-897-2215 or 817-897-4436; Glen Rose, Texas.

HOUSTON EMERGENCY PHYSICIANS ASSOCIATES has immediate openings for career oriented emergency physicians with surgical or emergency medicine backgrounds. Continuing education required. Teaching and non-teaching positions available in the city limits of Houston, Texas. Our physicians' present salaries are between $50,000 and $80,000 per annum based on tenure and experience. Flexible scheduling to allow for vacations and continuing education. Benefits include malpractice insurance, major medical, life, disability income. Call or send CV: Houston Emergency Physicians Associates, P. O. Box 36949, Houston, Texas 77036; 713-776-1081.

GENERAL PRACTITIONER NEEDED: To work with general surgeon doing GP work. Excellent opportunity for a doctor desiring family practice work. May start with salary of $45,000 per year negotiable. City has population of 9,000 with trade area of 25,000 to 30,000. Contact Chris S. Cruzcosa, M.D., 300 S. 5th Street, Carrizo Springs, Texas 78834. 512-876-5236.

TEXAS, NORTHEAST: Emergency physicians. Immediate openings available in established ACEP oriented group. Positions in several communities available. Prefer career-oriented emergency MDs. Additional training and/or experience required. Flexible schedule, fee-for-service with guarantee and usual fringes including malpractice insurance. Write: Emergency Medicine Consultants, 3600 Gaston Avenue, Dallas, Texas 75246, or call 214-823-6850.

INTERNIST—In small city South Central Texas; San Antonio, Austin area. Drawing area 22,000. 50-bed new hospital under construction. Financial assistance available. William B. Watts, Administrator, Gonzales County Hospital District, Gonzales, Texas. 512-672-2811.

NEED FULL TIME PHYSICIAN at medical facility of Gary Job Corps Center in resort community of San Marcos, Texas. Involvement is 8 a.m. to 5 p.m., Monday through Friday and on call alternate nights and weekends. Fringe benefits include a desirable housing arrangement and prepaid malpractice insurance. Salary upper $30s and negotiable. Contact Dr. M. D. Heatly, 512-396-6570 or at night 392-3044; or Mr. Al Martinez, Hospital Administrator, 396-6422; or write P.O. Box 645, San Marcos, Texas 78666.

CHILD PSYCHIATRY RESIDENCY may be taken before or after Adult Psychiatry training. Academic program in child development, family therapy, genetic and metabolic disorders, behavior therapy, group therapy, psychopharmacology and ethology. Basic clinical orientation in child development with intensive individual supervision in psychoanalytic and eclectic modalities and pediatric neurology. Research opportunities in genetic and metabolic disorders, child development, linguistic anthropology, community services, and other fields. Excellent opportunities in teaching, administration, inpatient and outpatient clinical programs. New 60-bed inpatient unit for children. Liaison with graduate schools, medical school and community programs. Stipends: first year, $15,000; second year, $16,000; third year, $17,000; fourth year, $18,000. Contact Anthony P. Rousos, M.D., Director of Residency Training, Austin State Hospital, 4110 Guadalupe, Austin, Texas 78751.

EXPANDING MEDICAL CLINIC has opening for internal medicine, OB-GYN and family practice. Apply: D. McCann, 2616 North Oregon, El Paso, Texas 79902; telephone 915-532-5232.

PRACTICE in the most sophisticated Texas city. Enjoy the small town atmosphere. Explore Pleasant Grove Hospital, first medical facility ever for 170,000 citizens in Southeast Dallas County. 172-bed hospital, now open, adjacent to professional building due completion September. Explore the possibilities with A. D. Hethcock, 214-398-1531.

PSYCHIATRIC RESIDENCY IN APPROVED three-year program. Effective connections with universities, medical schools, private clinics and community centers. Outstanding faculty and programs. Stipends with Texas license are $15,000, $16,000 and $17,000 per year. In addition, now offering residency in child psychiatry. For full information, write to: Anthony P. Rousos, M.D., Director of Residency Training, Austin State Hospital, 4110 Guadalupe Street, Austin, Texas 78751.

POSITIONS VACANT FOR TEXAS: Surgeon with thoracic surgery training wanted to join a busy solo practice summer of 1978. Opportunity to do general surgery while building up a thoracic practice. Board eligibility in general surgery required. Eligibility for thoracic surgery preferred. Please reply to Ad-735, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD CERTIFIED FP NEEDS ASSOCIATE for active practice. Across street from 160 bed hospital. Own lab and x-ray. All specialties available, full privileges. College town, deep east Texas. Forests and lakes for recreation. Fast growing area with diversified economy. Terms negotiable. Ralph C. Bailey, M.D., 1209 N. Mound Street, Nacogdoches, Texas 75961; telephone 713-564-3731.

ARE YOU TIRED OF THE FRUSTRATIONS of pediatric practice and are interested in practicing allergy under a Board-Certified Allergist? If so, write P.O. Box 1761, Austin, Texas 78767. Please enclose a curriculum vitae.

PRACTICE OPPORTUNITIES ACROSS THE STATE, in cities and towns, salary or fee for service. Attractive financial arrangements. Assistance with red tape. Send resume and preferences to: Texas Doctors Group, P.O. Box 177, 500 International Life Building, Austin, Texas 78767.

TEXAS, IRVING: EMERGENCY PHYSICIANS. 213 bed hospital nestled in a community just outside Dallas (population 117,000). Home of the Dallas Cowboys. Very active hospital staff with specialty and general backup. Positions available for full time career oriented MDs. Salary negotiable. Provision for standard fringes including malpractice insurance. Send CV to Professional Emergency Service Association, 913 N. Bishop, Dallas, Texas 75208. Call 214 943-4768.

TWO PRIMARY CARE PHYSICIANS NEEDED to serve a rural, medically underserved, growing resort and retirement area of 8,500+ people. Must have MD or DO, Texas license and strong interest in rural, family and gerontological health problems. Contact, Project Director, San Jacinto County Health Services, Inc., P.O. Box 644, Coldspring, Texas 77331. 713 653-4554. An equal opportunity employer.

MOTLEY COUNTY: NEED ONE OR MORE FAMILY PHYSICIANS. Trade area approximately 13,000; rural area, primarily farming and ranching. One physician needs relief and backup. 12-bed hospital; clinic furnished to physicians free, with guaranteed salary. If physician agrees to three year contract, clinic and equipment offered to physician at wholesale or below at end of contract. Motley General Hospital, Drawer A, Matador, Texas 79244.

FAMILY PRACTICE. One or two physicians to join me in an incorporated practice. Terms negotiable. Excellent facilities. Raymond Benski, M.D., D.A.B.F.P., F.A.A.F.P., Family Clinic, P.A., 1323 South 27th Street, Nederland, Texas 77627; call collect 713-722-0481.

CLASSIFIED AD RATES & DATA: Classified Advertising sells for $10.00 per issue for 50 words or less, payable in advance. Ad numbers can be substituted for formal addresses upon request at no extra cost. Name and address of ad number listings cannot be given out unless specific permission to do so has been given. The advertising office will not contact ad number holders except by mail. Copy deadline is the 5th of the month preceding publication. Send copy to Advertising Manager, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

GULF COAST LOCATION, PORT LAVACA, TEXAS—Need family practitioners, specialties. Friendly, growing city. Modern accredited 75-bed hospital. Three OR's, two delivery, five-bed ICU. Major industries here, excellent medical benefits. Patient potential for double present eight physicians. Excellent family location. Outstanding fishing, hunting, water sports. Convenient to metropolitan areas. Contact: Garney B. Scott, Chairman-Champ Traylor Memorial Hospital Physician Search Committee, c/o Auminum Company of America, Point Comfort, Texas 77978.

UNUSUAL PRIVATE PRACTICE OPPORTUNITIES NOW AVAILABLE in general practice. Opportunities available in a 158-bed proprietary hospital, physician owned and operated. Medical success in your practice guaranteed by cash of $6,500 per month for a period of six months. Free rent and other benefits also included. Pasadena, Texas, is a progressive city of 150,000 located as a suburb of Houston, Texas, near the Johnson Space Center. Community enjoys high per capita earnings, open staff policies, and unlimited medical opportunities. Applications will be restricted to aggressive and American-trained physicians only. For additional information, write or call Richard Fly, Administrator. Pasadena General Hospital, 1004 Seymour, Pasadena, Texas 77506. Phone 713 473-1771.

PEDIATRICIAN OR FAMILY PRACTITIONER. Buy retiring physician's home and assume six-figure practice immediately. No further investment required. Please reply to Ad-767, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FOURTH PHYSICIAN to join family practice group. Clinic integrated part of facility with 40 acute, 44 long term beds. Unique set-up, no buy in, no junior partner status, guarantee available. Fine small town 30 miles from Lubbock. You need to investigate this to really appreciate it. Contact Ray W. Freeman, M.D., Hugh H. Wilson, M.D., Gordon Russell, Hi-Plains Hospital, 203 West 4th Street, Hale Center, Texas 79041; 806 839-2471.

INTERNIST NEEDED—Certified or board qualified internist to do general internal medicine with eleven members of steadily growing, multispecialty practice. Clinic adjoins new, 77 bed, Hill Burton JCACH with recently expanded CCU/ICU to 8 units. Excellent climate, good fishing and hunting, new golf course and skeet range and close to metropolitan areas of Texas. Suggest salary at first with rapid advancement to director/owner in fully incorporated medical association. Send curriculum vitae. Please contact Van D. Goodall, M.D., Clifton Medical and Surgical Clinic Association, Clifton, Texas 76634. Telephone 817 675-8621 or home phone 675-3113.

GENERAL INTERNIST AND/OR GENERAL SURGEON. Board eligible or board certified. To join a 12-man multispecialty group. Guaranteed salary and no expenses the first year. Full participation second year. Excellent emergency coverage, recreation area, and 60 minutes from Dallas. 250,000 population drawing area. Good hospital facilities available across the street and 15 minutes from the clinic. If interested, send CV c/o George F. Erzinger, Clinic Manager, P.O. Box 1338, Sherman, Texas 75090.

WANTED: INTERNIST OR GENERAL PRACTITIONER to associate with general practitioner. Own 4000 sq. ft. clinic building with laboratory and x-ray in operation 40 years. Will make attractive terms to well trained ambitious physician. Please reply to Ad-776, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

DALLAS AT LARGE—Flexible scheduling on regular or occasional basis at a variety of Dallas area emergency departments. $3,000-$4,000 per month, paid malpractice. Contact Texas Emergency Room Services, P.A., 3603 Hall Street, Suite 102, Dallas, Texas 75219, 214-522-5481, or 1-800-325-3982, ext. 220, toll free.

DALLAS EMERGENCY STAFF POSITION—Dallas, Texas. Teaching institution with 20,000 patients per year. Variety of trauma and acute medicine. Congenial atmosphere in recently remodeled 500-bed hospital. Available July 1, 1978. $45,000 minimum guarantee/fee-for-service with great growth potential. Contact Texas Emergency Room Services, P.A., 3603 Hall Street, Suite 102, Dallas, Texas 75219, 214-522-5481 or 1-800-325-3982, ext. 220, toll free.

TEXAS EMERGENCY DEPARTMENT DIRECTORSHIP—Small town atmosphere within 30 minutes of Dallas. 8,000 patient visits per year. Coordinate clinical and administrative services of emergency department. Participate in hospital policy-making committees. $46,000-$59,000 per year. Contact Texas Emergency Room Services, P.A., 3603 Hall Street, Suite 102, Dallas, Texas 75219, 214-522-5481 or toll free 1-800-325-3982, ext. 220.

INTERNIST—Pine hills of East Texas. Thriving city of 65,000. Extraordinary cultural and recreational activities. Medical center of North East Texas. Ten man group—four GP/FP, three IM, three surgeons. Please contact Robert Felix, Administrator, Medical & Surgical Clinic, P.O. Box 3026, Tyler, Texas 75701; phone 214-593-1721.

WANTED—GP FOR BUSY PRACTICE in Longview, Texas. 60,000 population. Salary according to experience. No night calls or deliveries; work hours strictly from 8 a.m. to 5 p.m. For information call Dr. Elafifi, 214-758-4416.

STAFF PHYSICIAN NEEDED FOR STATE HOSPITAL. Progressive 750 resident state institution. Eligibility for Texas license required. Salary is negotiable, 40 hour work week, paid vacation, sick leave, holidays, good retirement plan and free group insurance. Kerrville is known as a retirement center. Prefer mature physician over age 50. Please contact Luther W. Ross, M.D., Superintendent, Kerrville State Hospital, P.O. Box 1468, Kerrville, Texas 78028 or phone 512-896-2211. We are an equal opportunity employer.

EXPANDING GROUP NEEDS SPECIALISTS in cardiology, obstetrics, pediatrics, general and orthopedic surgery. Enjoy practicing medicine with our 25-man multispecialty group located in a friendly city of 100,000 people in north central Texas. Close to everything, but away from big city problems. If you want to know more about this long established group (1919) whose city has a booming economy, call collect Dr. David M. Pogue at 817-766-3551. Wichita Falls Clinic, 501 Midwestern Parkway East, Wichita Falls, Texas 76302.

PHYSICIANS WANTED—Family practice, OB, GYN, pediatrics. Contact Paul Bennett, Administrator, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647. Telephone 214-845-2281.

EMERGENCY DEPARTMENT DIRECTOR WANTED—Longview, Texas, population 60,000. Two hour drive east of Dallas. Progressive community with beautiful wooded geography and nearby lakes. Need career ACEP MD with ER and administrative experience. Malpractice insurance supplied. Fee for service compensation $72,000 for 20 shifts/month. EHSA, 3600 Gaston, Se. 503, Dallas, Texas 75246; 214-823-6850.

PSYCHIATRIST NEEDED FOR STATE HOSPITAL. Progressive 750 resident state institution. Eligibility for Texas license required. Salary is negotiable, 40 hour work week, paid vacation, sick leave, holidays, good retirement plan, and free group insurance. Kerrville is known as a retirement center. Prefer mature individual over age 50. Please contact Luther W. Ross, M.D., Superintendent, Kerrville State Hospital, P.O. Box 1468, Kerrville, Texas 78028 or phone 512-896-2211. We are an equal opportunity employer.

FAMILY PHYSICIAN—Preferably with some training in trauma to associate with an eight doctor multispecialty group. Straight salary or salary plus participation with early partnership. Many fringe benefits. Curriculum vitae, references with reply. Contact V. Goodman, administrator, or B.A. Lawrence, M.D., 7630 Bellfort, Houston, Texas 77061; telephone 713-644-3344.

ANESTHESIOLOGIST—Board eligible anesthesiologist for incorporated group practicing in large JCAH hospital located in prosperous rapidly growing area in Houston, Texas. Excellent salary and fringe benefits. Full associate status one year. American graduate or fluent English required. Reply: MDA Associates, Inc., P.O. Box 36679, Houston, Texas 77036; telephone 713-777-8422.

OB/GYN NEEDS ASSOCIATE for practice in Pasadena, Texas. Pasadena is a progressive city of 150,000 located in the suburb of Houston. A community which enjoys high per capita earnings. Applications will be restricted to American or Canadian trained physicians only. Call T. E. Swate, M.D., 1907 E. Southmore, Pasadena, Texas 77502; 713-477-0101.

PEDIATRIC OPPORTUNITY! A work hard and play hard life style is offered in a community of 100,000. Well established practice, 500 bed hospital, congenial medical community, three local colleges, symphony, art museum, hunting, fishing, where people choose to rear a family. Let us show you! Send resume to Ad-791, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

STUDENT HEALTH SERVICE—New modern clinic, heart of East Texas recreational area, liberal time off, competitive salary and benefits. Contact Capt. A. C. Harris, USN (RET), Box 3058 SFA, Nacogdoches, Texas 75962; 713-569-4008.

PHYSICIAN WANTED FOR BUSY CENTRAL TEXAS GENERAL PRACTICE—Opportunity for association. Clinic adjacent to hospital. Charter member of American Academy of Family Practice. Could use FP, internist, or surgeon willing to do general practice. Good income. Close to Houston, Austin, San Antonio. Contact Willis G. Youens, Jr., M.D., 105 N. Grohmann, Weimar, Texas 78962; 713-725-8545.

TEXAS-GULF COAST: Neonatologist, board eligible or certified, for Level II Nursery. Responsibilities include director of unit, education, and patient care. Send curriculum vitae to Ad-792, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTICE in small town in East Texas near fast growing Cedar Creek Lake, Dallas, and Tyler. Drawing area 18,000, two 100 bed hospitals within 20 miles. Deceased physician's office with financial arrangements available. For more information write R. H. Sharp, Trinidad, Texas 75163.

BOARD ELIGIBLE OR CERTIFIED FP to join two man group in growing town of 15,000, immediately adjacent to Wichita Falls. Salary and/or percentage arrangement negotiable. First year earnings should equal or exceed $50,000. Contact Jerry Adams, M.D., 501 E. Third, Burkburnett, Texas 76354; 817-569-3351.

EMERGENCY PHYSICIAN GROUP has full-time positions available in Austin, Texas. Large volume emergency department. Fee-for-service. Malpractice insurance provided. $30-$40/hour. Please contact John Stein, 897 McArthur Blvd., San Leandro, California 94577; 415-638-3979.

LARGE SOLO INDUSTRIAL AND FAMILY PRACTICE, ready to retire. Will sell or lease beautiful brick 16-room, 2-man clinic fully equipped. Large gross income. Excellent cultural and medical environment with good hospital and coverage available. Fine hunting and fishing. Prefer to sell. Will finance. Contact 2016 South High, Longview, Texas 75602; 214-753-5568 or 753-0224.

FAMILY PRACTICE OPPORTUNITY: Solo practice opportunity available for young, board certified FP in centrally located city of 100,000 population with two hospitals; all specialties available. Rent free office space first 12 months, next to hospital, lab, x-ray facilities. Would share call with three other FPs (no OB). Please reply to Ad-795, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

WANTED: ASSOCIATE IN GENERAL PRACTICE in Austin, Texas, with early take-over of practice. For additional information contact Ad-796, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78705.

Situations Wanted

GENERAL INTERNIST, 30, FLEX, New York and Texas licensed, ECFMG certified. Board eligible ABIM, interest in cardiology: EKG interpretation, Holter, stress testing, ICU/CCU; some GP, seeks opportunity to practice solo, partnership or small group, preferably medium size city or suburbs. Available immediately. Please reply to Ad-773, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

Exceptionally well trained and experienced GP interested in move to Texas. Excellent references. Availability flexible, but would like to give minimum of three months notice to current position. Sunbelt Physician Placement Service, 5500 N. Braeswood, No. 177, Houston, Texas 77096. 713 729-6068.

SEEKING TEXAS LOCATION. P.J. Reddy (male), 40 years old. Psychiatry. M.D., D.P.M., F.R.C.P.(c), A.B.P.N., 10 years. Widely experienced. Eceleetic. Looking for position at university level or in practice. Fully licensed in Texas and few others. P.V. Reddy (female), 35 years old. OB-GYN. M.D., M.R.C.O.G. Passed Part I AB OB-Gyn. In practice 4 years. Looking for position in solo or group. Fully licensed in Texas. Contact Dr. P. J. Reddy, 343 Greenwood Drive, Petersburg, Virginia 23803; phone 804-861-9311 home; or 804-861-7331 office.

PATHOLOGIST: 47 year old, board certified, AP, CP and OB-GYN. Experienced in clinical and laboratory medicine as well as laboratory management. Presently director of very busy 3-man lab with over 300,000 tests per year. Married, three children. Born and raised in southwest. Desire to return. Seeks laboratory directorship in progressive community hospital. Reply to Ad-775, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PEDIATRICIAN, 32 years old, board eligible, Texas license, desires position in a hospital or clinic or with a group practice in Houston, Texas and vicinity. Please reply to Ad-780, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL SURGEON, 30, completed residency from medical college program. Qualified Part I boards. Seeks solo or partnership practice opportunity in Texas. Available immediately. Please reply to Ad-782, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

OB-GYN and SURGEON: Wife and husband, both board eligible. Additional training in head and neck surgery with good emergency room experience. Both seeking association, partnership, group practice, solo or full time. Available July 78. Both have FLEX. All locations considered. Please reply to Ad-784, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701; or call 212-254-1329 (home); 212-228-8000, ext. 276 (bus.).

GP WITH 20 years private practice in Ontario, seeking interview and establishing in group, solo or hospital. ECFMG, 1977. Texas license from 1978. Speaking English, also Italian, German, Yugoslavian, Russian, native Bulgarian and some Spanish. Three children, university, secondary, and primary schools. Healthy family. Please reply to Ad-786, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

MULTIDISCIPLINARY skills and leadership seeking opportunity in health services development and management, preventive medicine and health maintenance, internal medicine, environmental health, community development and design, energy conservation and alternative systems—or combination thereof. Location within 100 miles of Houston; limited traveling acceptable. M. Lawrence Heideman, Jr., M.D., 9109 Fondren, #216, Houston, Texas 77074.

BOARD ELIGIBLE GENERAL SURGEON, 30, good experience in trauma—vascular and general surgery. Seeking solo, association, partnership, group or clinic practice. Preferably in medium to large size university city in Texas. Available July 1978. Please reply to Ad-788, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

OTOLARYNGOLOGIST—35, board certified and well trained in all aspects of otorhinolaryngology. Head and neck, facial plastic reconstructive surgery and maxillofacial trauma. Seeks position in multispecialty clinic or partnership in community with population over 100,000. Available July 1978. Please reply to Ad-790, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

CANADIAN GRADUATE completing internship June 1978. National board certified also LMCC. Strong interest in preventive medicine. Lifestyle paramount importance re: call schedule, vacation, conference leaves. Seeking smaller center within 70 miles large urban center. No children. Wife is health planner, will require employment. Commencement Fall 1978 or January 1979. Contact William Lampard, M.D., 63 Centennial Street, Regina, Saskatchewan, Canada S4S 6W3.

ANESTHESIOLOGIST: Board eligible, university hospital trained, seeks group practice. Experience in open heart, neurosurgery, ICU. Available July 1978. Please reply to Ad-753, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

OB-GYN, American Board and FACOG, mature, experienced. Seeks to associate with clinic or OB-GYN with active practice. Will invest if appropriate. PHYSICAL MED AND REHAB, approved part I American Board PM&R. Experienced in electromyography and emotional aspects of restoration. Would like to be member of orthopedic and/or neurosurgical group. GENERAL SURGEON. Presently chief of service major hospital since completion of training 1976. Desires to enter private practice. Prefers rural community. PEDIATRICIAN. American Academy Pediatrics. Experienced both in clinic and private practice. OB-GYN. Written Board, OB-GYN, plus will complete two years additional training anesthesiology in July. Excellent for town and community hospital. OTHERS: Anes, Clinical Path, Derm, GP, IM, OB, Path, Primary Care IM, Psy, Urol. All currently certified or board eligible. Sunbelt Physician Placement Service, 5500 North Braeswood, No. 177, Houston, Texas 77096; 713-729-6068.

PATHOLOGIST, well-trained, AP-CP board certified, presently immunopathology fellow, Missouri FLEX, available July 1978. Seeking relocation in metropolitan or suburban Houston. Teaching or community hospitals, group practice or association. Please write Nidya Deshpande, M.D., 11433 Maridosa Trail, Apt. B., Florissant, Missouri 63033.

THORACIC AND CARDIOVASCULAR SURGEON: Completing residency June 1978, University of Utah, LDS Hospital, Salt Lake City. Available July 1978 for associate, group or solo practice. Contact Saeed Esmaili, M.D., 914 Medical Plaza North, Salt Lake City, Utah 84112; 801-583-0511.

GENERAL SURGEON, 31, finishing University of Texas residency, July 1978. Experience in trauma, vascular surgery and endoscopy. Prefer solo, associate or group practice on Gulf Coast. Tom Peurifoy, M.D., 406 17th Street, Galveston, Texas 77550.

SOUTHWEST HOUSTON ONLY—Physician, wife and mother. Mature, stable, excellent background. Would like to associate part-time with established IM or GP. May invest. Inquire through Sunbelt Physician Placement Service, 5500 North Braeswood, No. 177, Houston, Texas 77096; 713-729-6068.

GENERAL SURGEON, Board certified, 35. Seeks solo, partnership or group type practice near metropolitan area or in moderate size town. Available summer of 1978. Presently fulfilling military obligation at teaching hospital. Please reply to Ad-793, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

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Who Can Determine Malpractice?

Dear Ms Baker:

Your (TMA's) short brochure on the problem of malpractice insurance is well stated. Something has to be done, either by legislation or other means to halt this damage to two professions, medical and legal. My comments will be brief and blunt. Being no member of either profession, I am no partisan. My mission is to try to state the basic conditions that led to excessive malpractice insurance. Lacking such definitions, fiction takes over from fact.

The practice of medicine is an art, not yet a science. I feel it cannot ever be an exactitude because the variables that must be met are too many. This is no disparagement of medicine. It does mean that cures are not uniform and there are no formulas of certainty. Reasonable competence in diagnosis and prognosis is essential, but the failure to effect a cure is no measure of competence in either or both areas. There is, thus, a basic element of uncertainty in the practice of medicine which further defines it as an art, with a companion of progressive science. "*Errare est humanum*", or human error, is also a participant that cannot be eliminated. The determination of malpractice is thus difficult at best, and who is capable of its determination? Neither doctors nor lawyers can do it alone.

The review of proposed lawsuits by joint medical and legal action is highly desirable. If the principle of *joint action* is developed, there is ample competence in both professions to accomplish the objective. The mechanics of selection of competent reviewers will be determined more by voluntary concurrence than by legislative action and more unneeded laws. If the parties concerned honestly want to effect malpractice suit control, they will and can find ways and means of organization.

Sincerely,

Dwight Garrison, Col USAR Ret, Austin.

Editorials

HEALTH, REHAB PROGRAM OFFERS HELP FOR TROUBLED PHYSICIANS

Doctor you may need our help . . . .

In the past few years state and county medical societies and others, including the AMA and numerous professional societies, have placed increasing emphasis on their roles in helping colleagues who may be troubled or impaired. For too long a "conspiracy of silence" has surrounded a physician's disability—a subject distasteful for those within the profession to bring to the surface. Early reporting by concerned individuals was the exception, not the rule.

We have finally realized that physicians also, on occasion, need help. Our psychological and biological functions are the same as those of our patients.

Yet, we continuously push our physical and mental capacities beyond their limits. Physicians work in a state of sustained stress. Despite our medical training (or perhaps because of it) we are prone to occupational hazards of physical and emotional stress, long hours, irregular sleeping schedules, and constant fatigue. As a result, we often push ourselves into addictions or other conditions which may lead to illness or impairments in our ability to practice.

Our county and state medical societies have been dealing with this problem only in informal ways if at all. Many times we have not used compassionate measures, or have been reluctant to encourage distressed colleagues to seek early treatment for conditions which might impair their ability to practice medicine efficiently. Additionally, colleagues who are experiencing difficulties have been reluctant to seek help because of the uncertainty of knowing to whom they can turn, or how they might be accepted by the medical community.

Through the Physician Health and Rehabilitation Program of the Texas Medical Association, created in 1976 by the House of Delegates, a positive program has been developed to assist colleagues who need help.

The committee, originally called the Committee on the Impaired Physician, seeks your assistance in helping in the early identification of troubled colleagues so that they can be motivated toward treatment and rehabilitation, and may effectively reenter into a meaningful practice of medicine.

Some of our concerns and approaches:

1. A significant number of Texas doctors are at risk—perhaps up to 10%.
2. Technical procedures have been developed whereby due process can be served and still make the reporting person immune from civil liability.
3. The committee will maintain confidentiality in its work with the impaired physician.
4. The committee will act as the physician's counselor and advocate, and not in a punitive manner.
5. Early discovery of the troubled physician is imperative.
6. Doctors are not the only persons who know or suspect that a colleague is impaired. Consequently, the committee will rely on reports (if subsequently documented) from others including spouses, medical assistants, nurses, pharmacists, hospital administrators, hospital employees, and agencies and institutions.

A 24-hour hot line telephone communication system has been developed so that confidential reports can be given at any time.

Our concern does not end here. We have worked, and continue to work, on sources of referral for treatment and monitoring of the physician's rehabilitation. We are interested in partial employment for physicians who are at the halfway-house stage. The committee also is interested in involving the doctor's family in understanding and coping with the problem. Here, the Auxiliary to the TMA can be of immense help.

We are developing an educational program for county medical societies and members to help them to assume their advocacy role, because we feel it is important that the problem be handled on a local level if at all possible.

We are interested in medical school student selection procedures, including interview assessment, in order to try to spot an "at risk" student in time.

In formulating our program, we have studied other states' programs and have benefitted from their experience. I think we have a workable guideline of operation.

It is the ultimate goal of the committee to aid by early counseling or reentry into practice of one physician per week in Texas. The theme of our program, as printed in a brochure sent to every physician in Texas, is "Doctor . . . . You may need our help."

It's up to you . . . .

If you know of a doctor (including yourself) who may need the help of the committee in dealing with his or her practice, just call the number listed below. Your county medical society physician counseling committee, or you, will receive a confidential telephone call from a fellow physician who has a sincere interest in helping Texas doctors help themselves.

Leslie Ansley, MD, Lubbock, Chairman,
TMA Physician Health and Rehabilitation Committee.

(HOT LINE NUMBER: 512-477-5575)

THE POLITICAL IMPLICATIONS OF THE HEALTH PLANNING PROCESS

In 1974, Congress passed PL 93-641, the National Health Planning and Resource Development Act, which was signed by then President Gerald Ford in January 1975. Thus, with one act, and almost totally without the knowledge of the medical community, Congress determined the future and the course of practice of every physician in the United States.

PL 93-641 created 205 Health Systems Areas in the United States. After a year of study and consultation with many communities and organizations, Gov Dolph Briscoe divided Texas into 12 Health Service Areas. One Health Systems Agency (HSA) was required to serve as the health planning and implementation body for each Health Service Area. The goals of the Act were to make medical care more accessible, more available, and more cost effective.

Each HSA is administered by a board of directors with a consumer majority, has a paid health planning staff and is funded by the DHEW.

The HSA has four primary functions:

1. Review of all facilities requiring new construction, expansion of existing facilities, or conversion of facility to meet a different need. A recommendation on whether or not to grant a certificate of need is made by the HSA to the Texas Health Facilities Commission. This commission may grant or deny a certificate of need to any institution so applying.
2. Review of all federal funds granted for health care purposes in the specific area.
3. Development of a health systems plan (HSP). This plan, based on data gathered by agency staff from many sources, would define and document the needs of the area as regards mental health, physical health, environmental health, and medical facilities.
4. An annual implementation plan showing in detail how sections of the HSP would be implemented. At the state level, creation of a Statewide Health Coordinating Council (SHCC) was authorized. The function of this council was to coordinate all the HSPs, plans of all state agencies, and all facilities in Texas in a master state health plan.

The intent of Congress was to establish a mechanism for health planning to be performed at the most local level.

In order to fully understand all the ramifications of the law, it must be recognized that both Congress and the DHEW fully expect to have a national health insurance system in the not too distant future. In some way, under every proposed system of national health insurance, federal dollars are involved. Any system of national health care insurance will have needs which exceed available resources.

The National Health Planning Act, with its creation of multiple local and state health planning agencies, will most likely be delegated a great deal of authority for the allocation of scarce resources. PL 93-641, combined with the Act establishing professional standards review organizations, will be mechanisms of cost control. Since "quality of care" is a nebulous term which means different things to different people, the element of cost control will assume extreme importance under the law.

Since both the National Health Planning Act and Professional Standards Review have withstood the test of the courts and are not likely to be repealed, it behooves the medical community to become actively involved in understanding and molding the planning and review process.

Many physicians, not understanding the intent, function, or terminology of the planning process, inherently fear it. Rather than let this fear drive us to a helpless sense of frustration,

we should direct our concern toward physician involvement in, and molding of, the entire planning process at every level.

On Sept 23, 1977, the Department of Health, Education and Welfare issued national guidelines for health planning which, according to the Act, must be "quantitative in nature so far as practical." These guidelines tended to ignore the requirements of accessibility and availability of medical care and concentrated primarily on cost containment. The guidelines were so rigid and so far-reaching that they would literally, if fully implemented, have closed most of the rural institutions in Texas and greatly handicapped many fine urban institutions. About a month after the guidelines were issued, Governor Briscoe's office asked me to determine how they would affect the health care delivery system of the Dallas-Ft Worth metroplex and the surrounding 19-county Health Systems Area. I responded that these guidelines would demolish it.

The Governor then wrote to President Carter, denouncing the national health planning guidelines as issued as being both destructive and inflationary to health care costs in Texas. Governor Briscoe then contacted many southern governors, and they expressed similar views. Governor Briscoe then instructed his representative to the Health Planning Consortium of the National Governors Conference to attempt to obtain immediately a resolution by the National Governors Conference denouncing the federal guidelines; 36 states participated. The governor then conferred with HEW Secretary Joseph A. Califano, Under Secretary Charles Hale Champion, and Henry Foley, PhD, who had been brought in to revise the guidelines.

On Dec 5, Governor Briscoe; myself, representing Texas Area 5 Health Systems Agency and the Statewide Health Coordinating Council; L.S. Thompson, Jr, MD, former president of the Texas Medical Association, representing the TMA; and O. Ray Hurst, representing the Texas Hospital Association, met with Under Secretary Champion and Dr. Foley in Washington. This conference, along with some 55,000 comments, more than half of which were from Texas, resulted in a revision of the guidelines.

Governor Briscoe had asked that the revised version be issued as provisional guidelines for a new period of comment, rather than as final regulations. He had also asked that these guidelines be broadened and that rural areas be removed from certain parts of their restrictions. He further requested that a method of exceptions to these guidelines be established. His requests were met.

Three days before the final comment deadline, Governor Briscoe again arranged a conference with the DHEW for Dr. Thompson, Mr. Hurst, and me. At this conference, we reached an understanding that instead of exceptions being granted at the Washington level, they would be granted at the local and state level. The mechanism would include specific institutions being able to ask for an exception; the local Health Systems Agency would then help the institution document and justify the exception, and make an appropriate recommendation to the SHCC. The SHCC would have authority to grant or deny the exception and DHEW would withdraw the prerogative of reversing the state exception.

Through the process of dynamic local and state interaction, an understanding of tremendous significance involving institutions throughout Texas was reached. Although extensive dialogue with the DHEW does not necessarily result in an agreement, it can negotiate an understanding. During February, Governor Briscoe authorized me to testify as to the governor's health policy before the subcommittees on health of both the House and the Senate. This was given as a consolidated testimony, also representing Texas Area 5 Health Systems Agency, the Statewide Health Coordinating Council, the Texas Medical Association and its 14,000 physicians, and the State Health Planning and Development Agency. Mr. Hurst testified on extension of the Act as a representative of THA. The position of Texas was clearly documented and defined as it related to allowing Texans to plan for the health of Texans.

The survival of our medical free enterprise system depends on the vitality of the negotiating process. It also depends upon the sphere of influence, as established by those in organized medicine, with our senators, our congressmen, and our state officials. The political implications of the health planning process are great. It behooves us to understand these implications and to be involved in them.

Louis E. Gibson, MD, Corsicana.

May78

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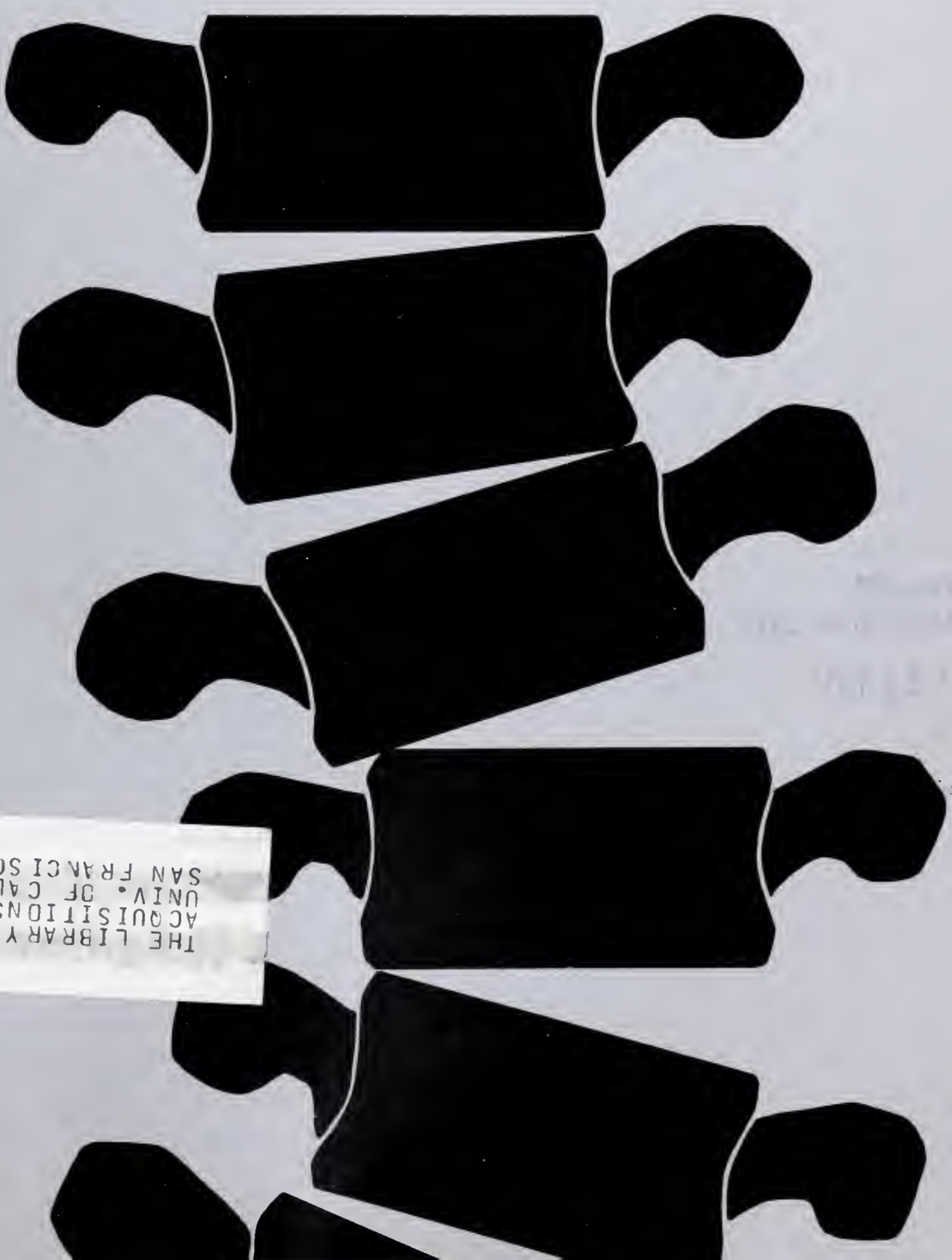

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Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. Oral—Adults: Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

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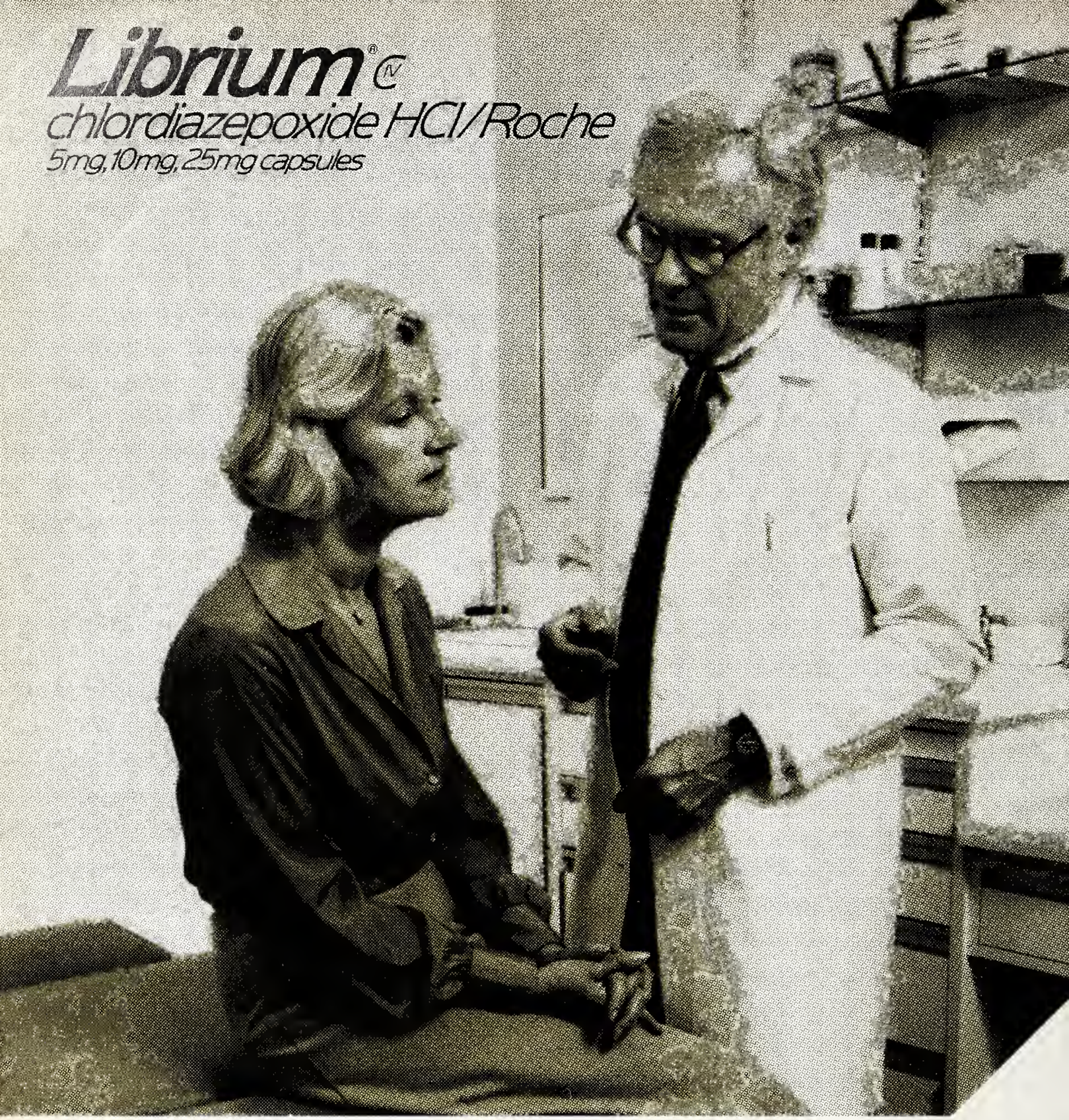

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Texas Medicine

VOL 74 MAY 1978

Devoted to the interest of the medical profession and public health in Texas

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On The Cover

Scoliosis needs to be found and evaluated during its early stages in order to achieve the best results of treatment. One problem is that 11-15-year-olds generally are healthy and seldom have physical ailments that prompt examinations of their backs. The article beginning on page 57 describes screening procedures as well as the different kinds of curves that may be found, and discusses appropriate treatment and observation schedules.

It shouldn't hurt to be a child.

But child abuse does hurt. And you can do something about it. Below are a few suggestions. Commit yourself to one and help stop the hurt.

Stop the Hurt.

- ☐ I'll show my child some love. (Sometimes I forget.)
- ☐ I'd like some facts. I'll send this coupon in and request information.
- ☐ I'll help a troubled parent by being a good friend.
- ☐ I have a problem. I'm going to start talking about it.
- ☐ I'd like to start helping right now. Here's my donation.

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State _____ Zip _____

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National Committee for Prevention of Child Abuse

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Brief Summary of Prescribing Information
Combined TEGOPEN® (cloxacillin sodium)
Capsules and Oral Solution
For complete information, consult Official Package Circular. (12) TEGOPEN 9/11/75

Indications: Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

Important Note: When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

Contraindications: A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

Warning: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

Precautions: The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

Adverse Reactions: Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

Usual Dosage: Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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"...THE PENICILLIN OF TODAY"

- Effective against nonpenicillinase-producing staphylococci, beta-hemolytic streptococci, and pneumococci.†

†NOTE: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin. The clinical significance of *in vitro* data is unknown.

- 10 times more active against strep than staph.
- Well absorbed from the G.I. tract.‡

‡Maximum absorption occurs when Tegopen is taken on an empty stomach, preferably 1-2 hrs. before meals.

Please see brief summary for prescribing information.

News in brief

Annual Session

Physicians attending the 1978 TMA Annual Session in San Antonio May 10-14 can expect an outstanding scientific program with many new features. Special symposia on school health, sports medicine, cardiovascular diseases, emergency medical services, maternal and child health, aging, rheumatic disease, and developmental disabilities will be offered . . . 7

House of Delegates

Texas Medical Association reorganization, TMA cost containment activities, new TMA services, specialty society representation, professional courtesy policies, and other TMA policies and activities will face the TMA House of Delegates during sessions May 11, 12, and 13 in San Antonio . . . 7

Health planning guidelines

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Medical costs

The Texas Voluntary Cost Containment Committee met in Austin in March to continue its work in attacking rising health care costs. The committee, made up of representatives of 20 health care groups, business groups, and state government, is organized to effectively deal with the problem of rising health care costs in Texas . . . 12

TMA membership

TMA membership reached a new record high of 14,144 during 1977, a net increase of 678 physicians over the previous year and the largest increase ever for the Association . . . 24

News in detail

TMA's 1978 Annual Session will include outstanding scientific program

Physicians who attend the 1978 TMA Annual Session in San Antonio May 10-14 can expect an outstanding scientific program with many new features.

Special symposia on school health, sports medicine, cardiovascular diseases, emergency medical services, maternal and child health, aging, rheumatic disease, and developmental disabilities will be offered.

Attendance at scientific programs, sponsored and cosponsored by TMA, will permit physicians to earn Category 1 credit on an hour for hour basis toward the American Medical Association Physician's Recognition Award.

Several special features have been added to the agenda this year. The AMA, in conjunction with the TMA Committee on Hospitals, will sponsor a seminar for hospital medical staff leadership. It will include discussion of responsibilities of the hospital medical staff and governing body, JCAH standards for hospital medical staff, medical staff bylaws, the hospital chief-of-staff, health systems agencies, and the art of negotiating.

The TMA and the Texas Medical Foundation will sponsor a seminar on the role of the physician advisor in utilization review. Two four-hour CPR courses will be offered, and an advanced CPR course (12 hours) is scheduled.

On May 13 and 14, the AMA, in cooperation with TMA, will conduct ten postgraduate courses involving chest roentgenograms, emergency surgical management, office dermatology, recent advances in drug therapy, chronic obstructive lung disease, basic electrocardiology, acid-base, fluid and electrolyte balance, cardiac arrhythmias, brief counseling on sex-related problems, and fungal infections for the Texas practitioner.

The continental breakfast presentation will be offered May 12 and 13 and will feature the guest speakers. The curbstone consultations, informal discussions on topics of general medical concern, will be presented May 12 and 13.

TMA House of Delegates will consider policies and activities May 11, 12, and 13

Texas Medical Association reorganization, TMA cost containment activities, new TMA services, specialty society representation, professional courtesy policies, and other TMA policies and activities will face the TMA House of Delegates during sessions May 11, 12, and 13 in San Antonio.

The delegates will meet at 8 am May 11, 12, and 13 in the San Antonio Convention Center. The nine reference committees will begin hearings at 10 am May 11 in the convention center.

Orientation for new delegates will begin at 6:45 pm Wednesday in the St Anthony Hotel. Blue Cross/Blue Shield will sponsor a delegates' luncheon Thursday in the banquet hall of the convention center with John H. Budd, MD, AMA president, as speaker.

TMA reorganization

The report of the Executive Board's Ad Hoc Committee to Study the Association's Organizational Structure and Function, along with the majority and minority reports of the Special Reference Committee on Reorganization that met in November, are included in the Handbook. The Special Reference Committee on Reorganization will consider these reports, along with any additional referrals pertaining to reorganization of the Association, at a reference committee hearing at 10 am May 11 in the convention center.

Self-insurance trust

A report by the TMA Ad Hoc Committee on Self-Insurance Trust details the study to provide information to determine if TMA should create an entity which can provide professional liability protection to members.

Cost containment activities

Delegates will receive updates on TMA's various activities in medical care cost control. The TMA,

with councils and committees involved in the efforts, has written to each county medical society president and executive and all hospital chiefs of staff with information about cost containment programs. The Executive Board has recommended that TMA support the proposed plan of operation for the Texas Voluntary Hospital Cost Containment Committee program.

As another part of the Association's cost containment efforts, the Committee on Health Insurance and the Council on Medical Service and Insurance have focused part of their attention on effects of the third party financing mechanism on medical care costs. The financing mechanism influences physicians and patient behavior in several ways by encouraging utilization of more expensive inpatient care instead of less expensive outpatient care, masking the real cost of delivering medical care, and lessening the patient's feeling of responsibility for expenditures.

The committee and council are recommending that TMA send recommendations to Blue Cross-Blue Shield of Texas and the Health Insurance Association encouraging them to develop and market more extensively alternative policies in Texas.

Specialty society representation

The Ad Hoc Committee on Specialty Society representation has found that imperative need exists for unity of effort and purpose within the medical professions and that specialty societies have an important and growing role in the leadership of the medical profession. The committee recommends that the House of Delegates identify the specialty societies, certify them as organizational members of the TMA where they qualify, grant to the qualified societies delegate representation to the House of Delegates, permit them to offer resolutions directly to the speaker, and permit only one delegate per specialty.

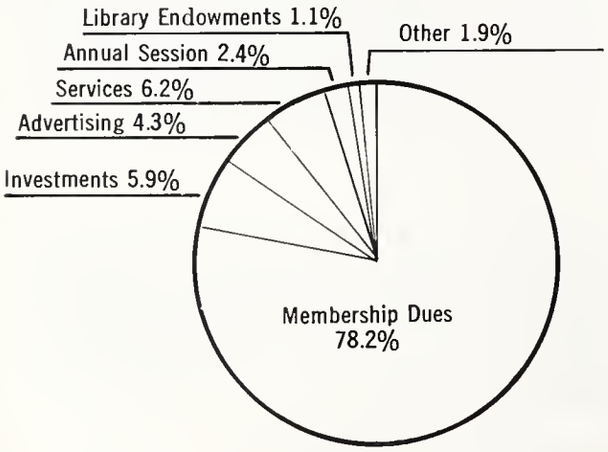
Financial report

In its report to the House of Delegates, the TMA Board of Trustees reports that the financial position of the TMA remains very sound.

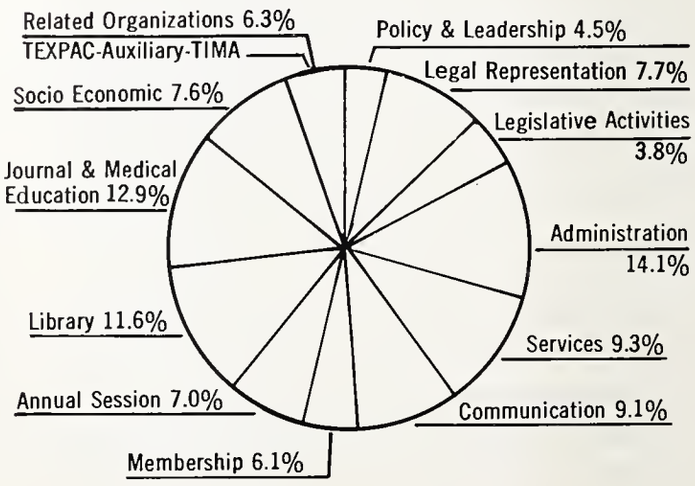
Association priorities

TMA delegates will consider approval and referral of the Association's 15 priorities for 1978. TMA's priorities include cost containment, access to health care, health planning, national health insurance, representing the physician, countering assaults on professionalism, ethics and discipline. Other priorities are professional liability, physician/hospital relations, professional standards review organizations, delivery of care, positive communications and public ed-

INCOME BY SOURCE



EXPENSE BY ACTIVITY



The charts outline the Texas Medical Association's 1977 finances showing income by source and expense by activity.

Preventive medicine

Take it for the "what-ifs" of life: disability, accidents, illness, death. The group insurance program offered by the Texas Medical Association helps you anticipate those unpredictables by preparing for them.

The TMA package policy includes term life insurance, disability income insurance, office overhead expense insurance, personal accident coverage, and major medical expense insurance designed to help you rest a little easier. Of course, no insurance policy can prevent accidents or illness. But the right policy can help to eliminate the accompanying financial worries.

To learn more about the ingredients of the TMA preventive medicine plan, send the coupon below to:

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1901 N. Lamar Blvd., Austin, Texas 78705
or call Toll Free, 1-800-252-9318

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ucation, legislative activities, continuing medical education, and strengthening the Association.

New departments and services

A Department of Physicians Fees and Profiles has been established to provide services and assistance to members in obtaining usual, customary, and reasonable fees for professional services under government health programs and private health insurance.

The director of the department will collect data on physicians' fees and profiles; develop expertise on Medicare, Medicaid, and CHAMPUS laws, regulations, and guidelines; provide information to officers and the Council on Tax-Financed Health Care Programs; and receive and handle the numerous complaints and inquiries directed to the staff by physicians.

A Socioeconomics Field Service with two field service representatives has also been established. Two staff representatives will develop liaison between the TMA and county medical societies, specialty societies, hospital medical staffs, health-related organizations, local officials, the TMA Auxiliary, and consumer organizations. Special attention will be devoted to health planning and meetings of boards, committees, and task forces of the 12 Health Systems Agencies. The field service representatives will monitor activities of the National Health Service Corps, Community Action Councils, migrant organizations, rural health clinic programs, and other groups. The two field service representatives will be based in Austin initially, at least during the orientation period and the initial stages of the program.

Joint Commission on Accreditation of Hospitals

The Council on Medical Education and Hospitals is recommending that the TMA continue to develop liaison with the Joint Commission on Accreditation of Hospitals. As one of its 1978 priorities, the council will continue to provide representation and voice for the physicians to the JCAH, and bring JCAH representatives to council meetings for discussion.

Committee on membership

The TMA Board of Trustees is recommending establishment of a committee on membership to provide physician guidance to membership recruitment and retention activities, to work with similar committees in metropolitan county societies, and to stimulate physicians' participation in membership recruitment at all levels of the medical society federation.

Model guidelines

The TMA Committee on Liaison with the State Bar of Texas is developing a set of model guidelines for use by county societies in orienting membership on conduct in legal matters involving patients. This could be used as a model upon which each society could build its own guidelines. The committee recommends that TMA fund the mailing of a questionnaire to all societies for use by the committee in developing model guidelines on legal matters.

Texas Medical Foundation

In its report to the House of Delegates, the Texas Medical Foundation presents information on programs it has developed to enable physicians to have more responsibility for and control over the delivery of medical care while yielding hard dollar savings. TMF offers the Texas Admissions and Review Program, the Quality Assured and Cost Effective Review Program, the Physicians' Office System, and assistance in prepaid health plans.

Health Maintenance Organizations

The Council on Medical Service and Insurance recommends that the TMA make information and technical assistance on the Health Maintenance Organization (HMO) concept and other alternative health care plans available to interested county medical societies and individual physicians. The council also recommends that county medical societies be encouraged to monitor development of HMOs and other alternative health care plans and be prepared to offer comments on any such proposals.

Professional courtesy

The Board of Councilors is recommending a statement to the House of Delegates as a guiding principle in matters of professional courtesy.

TEXPAC

In its report to the House of Delegates, TEXPAC reports that it has again surpassed records of the last nonelection year, 1975, as 43% more dollars were contributed in 1977 than in 1975 by 15% more physicians. For the fourth consecutive year, TEXPAC has won AMPAC's all events first place membership award.

Resolutions

Several county medical societies and delegates have introduced resolutions on various topics to be considered by the TMA House of Delegates.

The Harris County Medical Society has introduced a resolution opposing the federal government's intrusion into the private practice of medcine. The resolution asks TMA to oppose the Health Planning and Resources Development Amendments of 1978, the extension of certificate of need to physicians' offices, and decertification of health facilities and services. The resolution asks that states continue to be given authority to determine priorities for construction and funding of health care facilities.

A resolution by the Tarrant County Medical Society opposes the proposed changes in the AMA Principles of Medical Ethics. A Bexar County delegation resolution, introduced at the request of the Texas Society of Pathologists, Inc, asks TMA to encourage legislation that would insure that all Texas citizens be protected by the benefits of a uniform, modern medical examiners system operating across the state.

The Travis County Medical Society is asking the AMA to withdraw its membership in the American Blood Commission. A Nueces County Medical Society resolution asks TMA to begin an in depth investigation of recent implementation of the Medicare gap fill methodology which changes definitions and assigns dollar amounts to physicians for procedures for which they have never rendered a charge. The resolution asks TMA to cause this gap fill methodology to be dropped from Medicare profile procedures because it is in marked variance with previous definitions of customary profile amounts and in variance with the definition of prevailing profile amounts.

A resolution by the Navarro County Medical Society asks that the Texas Industrial Accident Board be expanded to include a physician. The Bexar County Medical Society is asking that TMA propose immediate implementation of a statewide 911 system and that all county medical societies be encouraged to become involved in assisting their communities in establishment of a 911 emergency telephone system.

Other items

Other items facing the TMA House of Delegates include a statement on alcoholism and drug abuse, an informational update on the status of nurse practitioners in Texas, and TMA's policy on review of medical screening programs by nonmedical organizations. Delegates will also consider TMA's statement on pronouncement of death and the procedures for applying for membership in county and state medical societies.

AMA launches ad campaign about the medical profession

The American Medical Association has launched an advertising campaign to reinforce the public's positive feelings about the medical profession and build on the favorable attitudes toward the quality health care provided by American physicians.

The advertisements began running in March in national publications of *Time, Newsweek, US News and World Report, The New York Times, Wall Street Journal,* and *Washington Post* and will continue through November.

The campaign has been endorsed by the TMA Council on Communication.

The ads are also available to physicians from the AMA to utilize as public education information in their offices.

Several of the ads deal with the issue of rising costs, while others point out ways to help patients stay healthy. Others tell how the medical profession works to maintain high standards of care.

For more information on the advertisements, and to order the information from the AMA see the order blank on page 115 of this issue.

TIMA executive committee meets to consider proposed rules

The Texas Institute for Medical Assessment (TIMA) executive committee met in Austin in April to consider proposed rules published in the March 3 *Federal Register* that could allow Texas to be designated as a single statewide professional standards review organization (PSRO).

Comment period for the proposed rules ends April 17, and the TIMA executive committee will be holding future meetings to discuss the single statewide Texas PSRO.

Since 1973, Texas health care providers, including the Texas Medical Association, the Texas Osteopathic Medical Association, and the Texas Hospital Association, have been working to have Texas designated as a single PSRO area.

In May 1973, the TMA House of Delegates authorized the creation of TIMA "that qualifies under all applicable laws to perform all of the functions of a PSRO throughout the State of Texas under a single organization."

The proposed rules allow HEW Secretary Joseph Califano to designate statewide PSRO areas in states where no PSRO areas have been designated, and where he has evidence that physicians in the state favor a statewide area.

When the PSRO assumes its full scope, it will review the professional activities of physicians and other health care providers in acute institutional care for services covered under the Social Security Act—Medicare, Medicaid, and maternal and child health programs.

The review of services provided to Medicare, Medicaid, and maternal and child health beneficiaries must assure that services are medically necessary, meet professional standards, and are provided in the most economical medically appropriate treatment site.

HEW issues final National Guidelines for Health Planning

The final National Guidelines for Health Planning were published in the March 28, 1978 issue of the *Federal Register*.

The guidelines, issued by the US Department of Health, Education, and Welfare, followed two sets of proposed guidelines issued in January 1978 and September 1977.

More than 850 comments were received on the second set of proposed National Guidelines for Health Planning, according to the HEW Bureau of Health Planning and Resources Development. More than 55,000 comments were received during the 77-day comment period on the first set.

With few exceptions, the guidelines are identical to the proposed guidelines published in January. The standards give local areas five years to bring themselves into line.

The final guidelines include numerical standards of less than 4 beds per 1,000 population and a general hospital occupancy rate of at least 80% per year. The standards also include a 75% occupancy rate in facilities having more than 1,500 live births per year, and the stipulation that obstetrical facilities should be planned on a regional basis.

The final guidelines also state that neonatal intensive care units should be planned on a regional basis.

For open heart surgery, a minimum of 200 adult procedures per year or 100 pediatric procedures, 75% of the latter being open heart, should be performed. No new units should open unless all existing units are performing more than 350 adult procedures or 130 pediatric procedures.

Each radiation therapy unit should serve a minimum of 150,000 people and treat 300 cases annually. No new units should open unless all existing units are performing at least 6,000 treatments annually, state the guidelines. Health systems agencies may make exceptions where distance and travel time might cause hardship.

Texas voluntary committee continues work in attacking rising medical costs

The Texas Voluntary Cost Containment Committee met in Austin in March to continue its work in attacking rising health care costs. The committee, made up of representatives of more than 20 health care groups, business groups, and state government, is organized to effectively deal with the problem of rising health care costs in Texas.

The panel is chaired by John M. Smith Jr, MD, Texas Medical Association president, and Richard L. Epperson, chairman of the Texas Hospital Association.

At the March meeting, each group reported

If you take care of your people, they'll take care of you.

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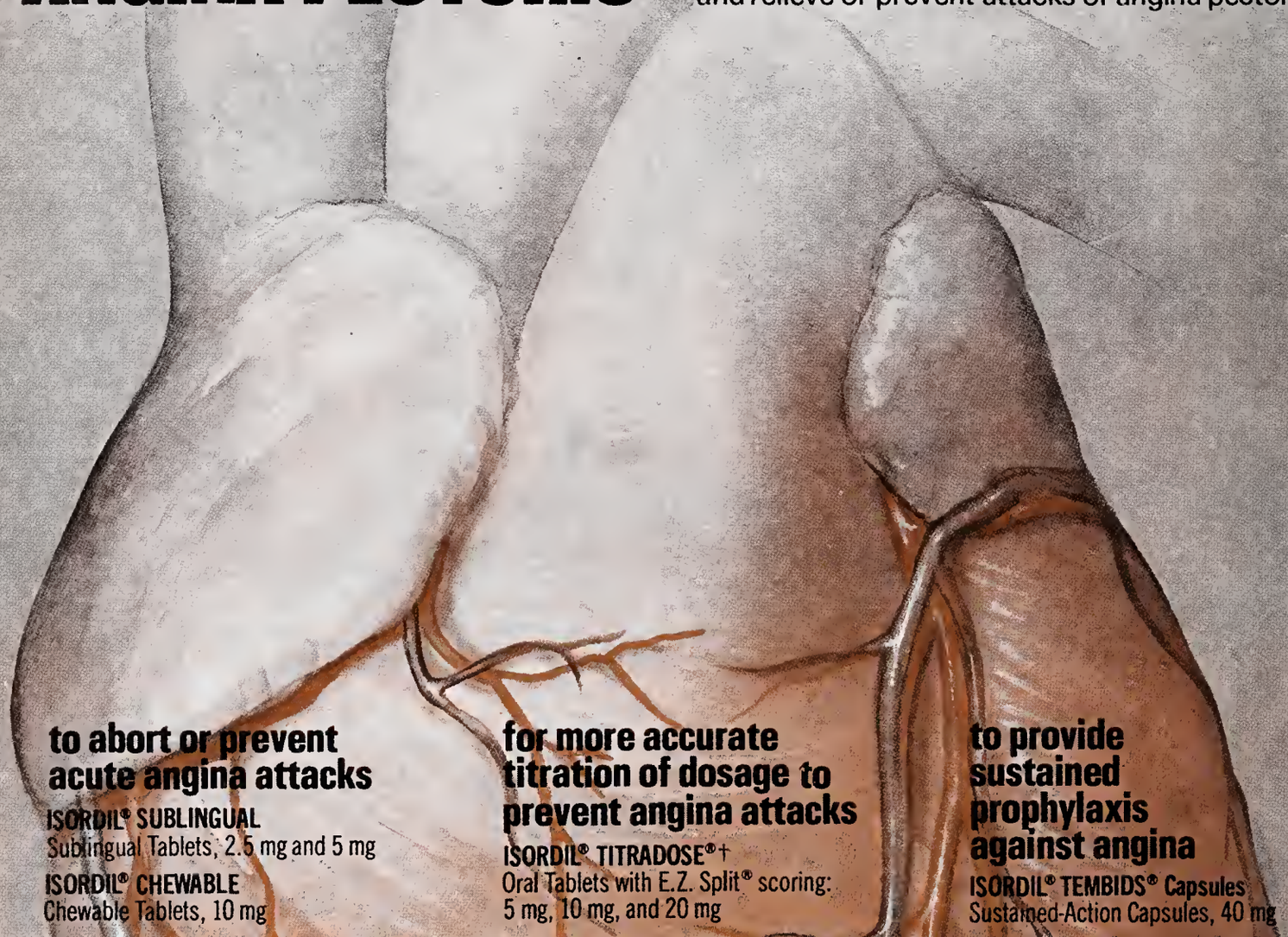
The established use of Isordil in the management of angina pectoris for more than two decades has often been ascribed only to the vasodilatation it produces in the coronary arteries. Recent investigations, however, suggest that an even more important effect of this agent is to dilate peripheral arteries and veins. Arterial dilatation lowers impedance to left ventricular ejection, reducing afterload. Venous dilatation leads to venous pooling and a fall in right and left ventricular filling pressure, thus reducing preload.

With afterload and preload reduced, the amount of energy expended and oxygen consumed by the heart should be decreased. Isordil can thus reduce myocardial oxygen requirements and relieve or prevent attacks of angina pectoris.



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Chewable Tablets, 10 mg

for more accurate titration of dosage to prevent angina attacks

ISORDIL® TITRADOSE®†
Oral Tablets with E.Z. Split® scoring:
5 mg, 10 mg, and 20 mg

to provide sustained prophylaxis against angina

ISORDIL® TEMBIDS® Capsules
Sustained-Action Capsules, 40 mg

***Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Probably" effective: When taken by the sublingual or chewable route, Isordil Sublingual and Chewable Tablets are indicated for the treatment of acute anginal attacks and for prophylaxis in situations likely to provoke such attacks.
"Possibly" effective: When taken by the oral route, Isordil is indicated for the relief of angina pectoris (pain of coronary artery disease). It is not intended to abort the acute anginal episode, but is widely regarded as useful in the prophylactic treatment of angina pectoris.
Final classification of the less-than-effective indications requires further investigation.

Contraindication: Idiosyncrasy to this drug.

Warnings: Data supporting the use of nitrites during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety.

Precautions: Tolerance to this drug and cross-tolerance to other nitrites and nitrates may occur.

Adverse Reactions: Cutaneous vasodilation with flushing. Headache is common and may be severe and persistent. Transient episodes of dizziness and weakness as well as other signs of cerebral ischemia associated with postural hypotension may occasionally develop. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents. An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite, and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur even with the usual therapeutic dose. Alcohol may enhance this effect. Drug rash and/or exfoliative dermatitis may occasionally occur.

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on the progress and support in efforts to contain rising costs. The group also discussed concerted efforts to assist in public understanding of the current health care delivery system in Texas.

The voluntary committee was formed in December 1977 in response to legislation pending before the US Congress that would put arbitrary cost controls on the health care industry.

To retain local and state control of hospitals, medical practices, and other components of health care delivery, the organizations in Texas, other states, and the nation are continuing a concerted effort to contain rising costs while maintaining quality care.

Some of the groups represented at the latest meeting report substantial progress in identifying cost effective and cost containment projects being implemented at the state level.

Groups participating in the Texas Voluntary Cost Containment Committee include the Texas Medical Association, Texas Hospital Association, Texas Federation of Hospitals, Blue Cross/Blue Shield of Texas, Health Insurance Association of America, Office of the Governor, Statewide Health Coordinating Council, Texas Association of Business, Texas Association of Homes for the Aging, Texas Association of Hospital Auxiliaries, Texas Association of Hospital Governing Boards, Texas Department of Health, Texas Department of Human Resources, Texas Medical Foundation, Texas Nurses Association, Texas Nursing Home Association, Texas Osteopathic Medical Association, Texas Pharmaceutical Association, and Texas Society of Certified Public Accountants.

Health department will develop hypothyroidism program

The Texas Department of Health has been authorized by the Texas Legislature to establish a program to detect hypothyroidism in newborn infants through blood screening tests. Future funding will allow the department to pursue this program.

Clift Price, MD, chief of the bureau of personal health services, said there is a possibility of getting federal funds for initial phases of the program.

"We may get funding under the National Genetics Acts, which I understand covers a wide range of congenital disorders in newborns." If not, he said, it will be up to the next session of the Texas Legislature.

"Hypothyroidism is seen in about one of every 5,000 births," Dr Price said. "We already operate another testing program for phenylketonuria (PKU), which occurs in about one of 15,000 births."

With its large birth rate—233,666 births last year—Texas can expect to have a large number of babies born with hypothyroidism.

In its testing program, Dr Price said the department laboratories can use the same cards on which blood specimens are collected now for the PKU program. The departments laboratories last year did 190,103 screenings for PKU.

Legionnaires' disease diagnosed throughout the United States

Legionnaires' disease, originally thought to be a rare and obscure entity, is presently being diagnosed with greater frequency and accuracy throughout the United States, according to the Texas Department of Health.

The etiologic agent is a gram negative rod. The organisms will grow, although slowly, on Mueller-Hinton agar with hemoglobin and Isovitalex.

Symptoms usually begin two to ten days after exposure, and include malaise, muscle aches, and headache. A nonproductive cough frequently occurs early in the course of the disease along with rapidly rising fever and chills. The illness usually progresses during the next two to three days, manifested by productive cough and pulmonary consolidation. Approximately 15% of patients die. In these cases the mechanism of death is respiratory failure or shock.

Epidemiologic data suggest that Legionnaires' disease may account for about 1.5% of all pneumonia cases in the United States, or 15,000 to 45,000 cases per year, says the health department. It is now apparent that the organism is widespread geographically, and that mild cases are often not diagnosed. The organism seems to be air borne, though it is not highly infectious, as evidenced by the lack of cases among health care professionals attending patients, the health department says.

Presumptive diagnosis may be confirmed by serologic studies now being performed by the Texas Department of Health. Physicians should

follow the protocol outlined:

1. An acute serum specimen (10 cc whole blood) should be drawn as early as possible in the course of illness, and spun down to separate the cells from the serum.
2. A convalescent serum specimen (10 cc whole blood) should be drawn at least three weeks, and preferably four weeks, after the onset of illness. (Antibody titer rise occurs comparatively late in Legionnaires' disease.) Spin down to separate cells and serum.
3. These paired sera samples should be stored in the freezer until they can be mailed together to the proper address. They need not be frozen while en route.
4. Single serum specimens will not be tested unless at least three weeks have elapsed since the onset of illness.

Specimens should be mailed directly to the Bureau of Laboratories, Texas Department of Health, 1100 West 49th Street, Austin, TX, 78756.

When serum specimens are sent the date of onset, the date of specimen collection and the presence of pulmonary involvement should be indicated. If there is no indication of pulmonary involvement, no tests will be run.

Only lung tissue and pleural fluid will be accepted for attempted isolation of bacteria. Specimens should be sent to the Bureau of Laboratories. These samples should be kept cold, but not frozen, prior to and during mailing. Freezing will kill bacteria, and thus lessen the chances of bacterial isolation. Under no circumstances should dry ice be used, as the combination of freezing and carbon dioxide will kill any bacteria that are present. For the same reasons preservatives such as formaldehyde should not be used.

Wall Street Journal comments on health and happiness

"We were struck by the central finding of a recent University of Chicago survey on health care: 61% of the respondents think there is a 'crisis in health care' in the United States, but an even higher proportion, 88%, are satisfied with the health care they themselves receive," says an editorial in the *Wall Street Journal,* Feb 10, 1978.

"It is interesting to ask how a 'crisis' can exist when only 12% of the people are unhappy." The survey was performed by Chicago's Center for Health Administration Studies with the help of the university's National Opinion Research Center. The survey found other substantive evidence that a lot of things are right with US health care.

Some of the good things: infant mortality has dropped 19% in the past five years; 76% of the population and 87% of infants and small children had at least one visit to a doctor in 1976; blacks and low-income Americans have obtained sharply improved access to medical care; 52% of the population had a physical examination in 1976; 64% can obtain a doctor's appointment within two days; the ratio of doctors to population has increased to 162 per 100,000 in 1976 from 139 in 1960; 63% of people who visit doctors are satisfied with the out-of-pocket cost of care and 87% are satisfied with the quality of care they receive.

"These numbers hardly paint a picture of health care 'crisis.' Rather they suggest that the nation's doctors, nurses and other medical personnel are doing a commendable job.

"The performance is particularly impressive when you look abroad. One of our readers recently sent us a horror story about the handling of an emergency case by a hospital in Kiev, USSR, during his visit with a party of American tourists. The patient, a woman who had suffered a miscarriage, incurred a serious infection because of a lack of the simplest precautions by the hospital staff."

The answer to the health care riddle is not complex, the *Wall Street Journal* points out. "The 'crisis' that is so often cited by political leaders is not a medical crisis but a budget crisis. Government, mainly through Medicare and Medicaid, now pays a major share of hospital costs in the United States and it has been unable to control the rise in the budget amounts it must allot.

"Government's cost control difficulty is, of course, an embarrassment to people who want to nationalize the entire health care industry. So are the evidences that Americans, by and large, are not unhappy with the quality of health care they now receive.

"It is not surprising that a lot of people think there is a 'crisis'; they are being told that constantly by politicians. But it is useful to try to get a better understanding of what the 'crisis' really is all about," the *Wall Street Journal* concludes.

Does it influence your choice of a peripheral/cerebral vasodilator*?

- Vasodilan—compatible with coexisting diseases
- Vasodilan—compatible with concomitant therapy
- Vasodilan—compatible with your total regimen for vascular insufficiency

*Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.
Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

Dosage and Administration: Oral: 10 to 20 mg., three or four times daily.
Intramuscular: 5 to 10 mg. (1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.
Parenteral administration is not recommended in the presence of hypotension or tachycardia.
Intravenous administration should not be given because of increased likelihood of side effects.

Adverse Reactions: On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.
Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.
Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

Supplied: Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

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VASODILAN®
(ISOXSUPRINE HCl)
20-mg tablets

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This asthmatic isn't worried about his

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he's effectively
maintained on

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high theophylline for effective around-the-clock therapy

Quibron may give the asthmatic up to eight hours of bronchodilation with each dose and provides the high dosages of theophylline which are now believed necessary to keep patients free of acute attacks and chronic wheezing.

100% free theophylline

Quibron helps achieve high serum theophylline levels with minimal dosage volume...delivers 100% free theophylline in comparison to many other compounds which contain from 47% to 91% effective theophylline.

individualized theophylline dosage schedule

Today's more efficient usage of theophylline includes individualizing dosage and monitoring serum theophylline levels. The usual recommended dosages of Quibron are: Adults—1 to 2 capsules or tablespoonfuls every 6 to 8 hours; dosage may be cautiously adjusted upward when necessary to a maximum of 2000 mg theophylline per 24 hours. Children under 12—4 to 6 mg theophylline per kg/body weight every 6 to 8 hours; dosage may be cautiously adjusted up to 9 or 10 mg/kg every 6 hours.

Now, for the asthmatic who requires high-dose theophylline therapy for therapeutic serum concentrations

Mead Johnson Pharmaceutical Division announces

QUIBRON®-300

Each capsule contains 300 mg theophylline (anhydrous) and 180 mg glyceryl guaiacolate (guaifenesin)

For Brief Summary, please see the last page of this advertisement.

QUIBRON®-300

Each capsule contains 300 mg theophylline (anhydrous) and 180 mg glyceryl guaiacolate (guaifenesin)

The new high-dose theophylline capsule... for dependable theophylline therapy when products of lower dosage do not adequately control asthma symptoms.

Specially formulated

...for optimal efficacy

Quibron-300 is appropriate therapy for asthma patients whose symptoms are not adequately controlled on lower doses of theophylline, particularly for patients whose theophylline dosage has been adjusted upward to achieve therapeutic serum levels. In one study,[1] an average peak increase in FEV_1 of 35% was demonstrated after a single dose equivalent to one Quibron-300 capsule, and significant improvement in this pulmonary function lasted for nearly eight hours after administration.

...for optimal predictability

One Quibron-300 capsule q6-8h yields therapeutic serum levels (10-20 mcg/ml) in many adults. With a single dose, more than 75% of patients achieved serum levels potentially providing clinical benefit (5-15 mcg/ml). Half-life of theophylline varies widely from patient to patient, making monitoring of theophylline therapy important. Patient response may be monitored clinically if blood levels are not available as long as dosage does not exceed 1200 mg in 24 hours for adults.

...for optimal dosage convenience

The simple, convenient dosage of new Quibron-300—one capsule every six to eight hours—makes it easy for patients to comply with high-dose regimens often required to achieve therapeutic serum levels. Quibron-300 capsules may provide maximum therapeutic value with maximum convenience. In fact, the switch from a low-dose to a high-dose regimen may be accomplished by merely switching capsules, by stepping up to Quibron-300 capsules.

...for minimal theophylline side effects

Adverse reactions to theophylline are related to serum levels and are usually not a problem at concentrations below 20 mcg/ml. Of 45 patients studied[1] after a single dose, only seven reported adverse reactions. The most common reaction was a feeling of lightheadedness by three of these seven patients.

Reference 1. Data on file. Mead Johnson Pharmaceutical Division.

Indications: For the symptomatic treatment of bronchospastic conditions such as bronchial asthma, asthmatic bronchitis, chronic bronchitis, and pulmonary emphysema.
Dosage: Quibron—Adults: 1-2 capsules or 1-2 tablespoonfuls elixir every 6-8 hours. Children under 12: 4-6 mg theophylline/kg body weight every 6-8 hours.
Quibron-300— Adults: 1 capsule every 6-8 hours.
Theophylline dosage may be cautiously increased to 2000 mg/24 hour in adults and 9 or 10 mg/kg every 6 hours in children. Monitoring of serum theophylline levels at higher dosages is recommended.
Precautions: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.
Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 μg/ml.
How Supplied: Quibron Elixir: Bottles of 1 pint and 1 gallon. Quibron Capsules: Bottles of 100 and 1000 and unit-dose packs of 100. Quibron-300 Capsules: Bottles of 100.

Mead Johnson PHARMACEUTICAL DIVISION

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Texas Medical Association forms TMA Forum on Medical Issues

The Texas Medical Association has expanded its speakers bureau and formed a new TMA Forum on Medical Issues.

With the recruitment of 75 physicians and staff speakers, the Association now can present programs on 45 separate medical topics within the broad areas of legislation, socioeconomics, education, ethics, hospital issues, legal aspects of medicine, community health programs, and the 1978 elections.

County medical societies are urged to schedule one or more programs during 1978. TMA is also urging county medical societies to schedule an Association speaker before a lay group on the day the speaker visits the county medical society.

The programs will be presented at no charge. The Association is underwriting the speakers' travel costs.

County medical societies are urged to make the program request at least two weeks before the meeting date.

For more information contact Robert G. Mickey, TMA, 1801 N Lamar Blvd, Austin, TX, 78701.

TMA criticizes federal report by Council on Wage and Price Stability

The Texas Medical Association has criticized a federal Council on Wage and Price Stability report TMA says unfairly attacks doctors' fees. The study said physician fees have risen 80% faster than other prices in the economy since 1950.

Physicians have faced many pressures that have required them to raise fees in the last few years, says John Smith Jr, MD, TMA president. For instance, the soaring price of malpractice insurance forced many doctors to pass on part of the burden to patients. All businesses pass on costs to customers. The problem with doctors' fees is malpractice insurance premiums increased 600% in four years in many instances.

Dr Smith, a San Antonio family physician, says people have been getting more for their money as health care costs increase. Utilizing new machinery, tests, and other technology cost doctors money but patients and doctors believe the benefits are worth it. People today are living longer, healthier lives because of advances in medical science.

The report, issued in March, failed to point out these facts. But it did accuse doctors of restricting the numbers of new physicians during much of this century by controlling medical education. Dr Smith said that in the early 1900s unlicensed medical schools were churning out loads of badly trained doctors so something needed to be done. The American Medical Association and other groups helped establish accreditation procedures to put these medical schools out of business. With that problem solved, the AMA has been trying to increase the supply of properly trained physicians. These efforts are working, Dr Smith says. In 1977 Texas medical schools graduated 718 doctors as compared to 321 in 1968. This is a gain of 124%.

As part of a broad-based program to fight health care costs, TMA is urging insurers to pay for some services and tests even if the patient does not have them done in the hospital. Currently many insurers will pay for some procedures only if they are done in a hospital.

TMA also is urging doctors to use streamlined office practices and order the minimum number of tests without sacrificing quality care. Doctors are educating patients about the cost-saving benefits of filling out their own insurance forms and having a healthy lifestyle. Doctors also are working with hospitals and other groups to hold down their costs and are trying to get government to cut expensive, unnecessary paperwork.

Doctors hope that all these and other efforts will help restrict the rise in health care costs, Dr Smith says. "Physicians' fees for years have taken only 20 cents of the dollar spent on health care. But we feel we must do our part to help control costs."

Average MD-patient encounter is 15 minutes, survey shows

A survey of office-based physicians in the United States shows that the average face-to-face encounter between physicians and patients lasts 15 minutes.

According to a study by the National Center for Health Statistics, dermatologists had the briefest encounters with patients (11.9 minutes

average) and psychiatrists the longest (46.9 minutes). Internists averaged 18.2 minutes and general and family practitioners, who made up 40% of the survey sample, averaged 12.6 minutes of face-to-face contact with patients.

The data are from the calendar year 1975 and are part of the National Ambulatory Medical Care Survey.

The survey also noted that 48.8% of patient visits were deemed "not serious" by the physician; 32.4% were thought to be "slightly serious" or "very serious"; 44.3% of office visits resulted in a prescription being given to the patient; one or more laboratory tests were ordered or performed in 22.9% of the visits; and an office surgical procedure was performed in 6.7% of the patient visits.

Connaught Laboratories is new manufacturer of yellow fever vaccine

Connaught Laboratories, Inc, is the new approved manufacturer of yellow fever vaccine in the United States, according to the Center for Disease Control.

After Feb 28, 1978, Merrell-National Laboratories, Inc ceased distribution of yellow fever vaccine. Because the expiration date of yellow fever vaccine is one year after manufacture, vaccine made by Merrell-National Laboratories, Inc, may be used by authorized Yellow Fever Vaccination Centers through Feb 28, 1979.

The name of the producer of the vaccine administered should be entered in the block under manufacturer on International Certificates of Vaccination Against Yellow Fever. Certificates completed before Feb 28, 1979, may contain either manufacturer, Merrell-National Laboratories, Inc, or Connaught Laboratories, Inc.

For International Certificates of Vaccination Against Yellow Fever completed after Feb 28, 1979, to be valid, Connaught Laboratories, Inc must be shown under manufacturer or the traveler may run the risk of having to be revaccinated before entering countries requiring a certificate as a condition of entry.

Distribution of yellow fever vaccine manufactured by Connaught Laboratories, Inc will be handled by the A.H. Robins Company. Orders must be placed with A.H. Robins, Richmond, Va 23231.

United States has enough hospital beds, physicians declare in AMA poll

The United States has enough hospital beds, and some patients now hospitalized could be treated on an outpatient basis, say a majority of American physicians responding to a poll in *American Medical News*, the weekly newspaper for physicians of the American Medical Association.

Even so, only 30% of the doctors believe that any hospital beds could be eliminated without negatively affecting the quality of health care. Sixty per cent of the physicians answering the questionnaire think that the current supply of hospital beds accessible to their patients is "about right." Some thought there were not enough, while 20% say there are too many beds.

Some 68% of the doctors agreed that some of their patients now hospitalized could be treated on an outpatient basis.

Said one internist: "I could probably treat half of my patients at home if they could afford my time (few present insurance programs cover such outpatient physician services) and their families would help in their care."

National Cancer Institute will collect medical records to study Laetrile

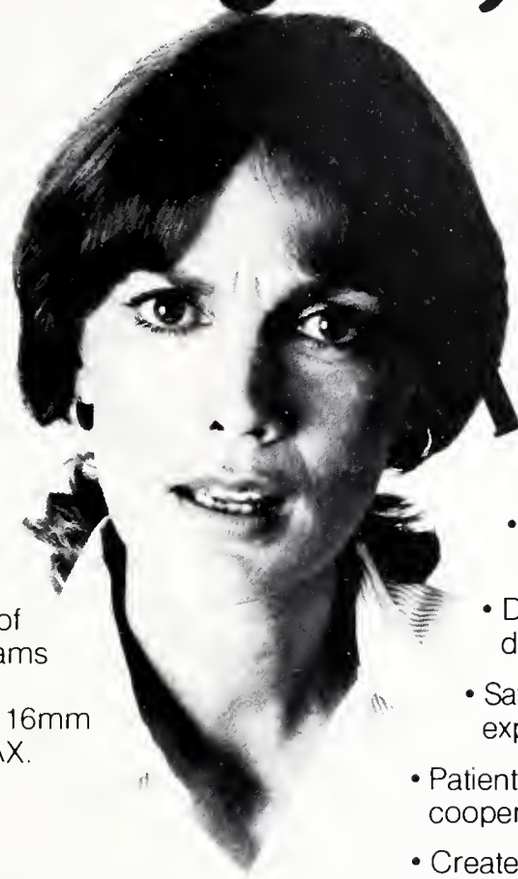
To see if Laetrile has any documentable anti-tumor effects, the National Cancer Institute will collect medical records from cancer patients who have used the controversial drug.

Laetrile is now available in 14 states, and NCI officials hope data from the large number of patients thought to be using the drug will be decisive in deciding whether or not to proceed to clinical trials. Laetrile has failed to show a reproducible anti-tumor effect in at least a dozen animal trials.

According to NCI's Neil Ellison, MD, the same criteria used in judging case reports of other cancer therapies will be used to judge Laetrile. Cancer diagnosis in patients submitting records will have to be proven by biopsy, and objective evidence of anti-tumor effects will have to be shown by X-ray, scanning, physical examination, or other means.

NCI is interested in patients who used Laetrile with or without the metabolic therapy and chelating agents now being advocated by Laetrile proponents.

"I still don't understand. Can you explain it again, Doctor?"



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TMA membership reaches 14,144 during 1977

TMA membership reached a new record high of 14,144 during 1977, a net increase of 678 physicians over last year and the largest increase ever for the Association.

Regular and provisional membership grew by 559, and 824 provisional memberships were processed.

The second highest increase came in student membership. Nearly 150 new medical student members were added. Resident membership declined, in spite of 182 new resident memberships.

Dues exempt categories of inactive and honorary memberships continue to increase each year as more physicians reach retirement age.

There are 12,504 regular or provisional members, 345 resident members, 187 medical student members, 220 partial dues payment members, and 852 dues exempt members.

There was a significant increase in the number of TMA physicians who hold memberships in the American Medical Association; 8,593 physicians paid AMA dues, along with 1,082 dues exempt physicians, for a total of 9,675.

Texas ranks fourth among states in AMA membership. Only California, New York, and Illinois have more AMA members. Approximately 68% of TMA members belong to the AMA.

Federal government will provide support for flu vaccine program

The federal government has decided on a flu vaccine program of providing federal support for states to establish annual immunization programs for high-risk people.

"We are not proposing a swine flu-type program in which immediate immunization of the entire population is sought, with vaccine purchased by the federal government," emphasized Health, Education, and Welfare Secretary Joseph Califano at a recent news conference.

An immediate $15 million will be sought from Congress to launch the program, which is expected to cost the US government about $20 million annually.

The high-risk populations are people of any age with chronic conditions making them susceptible, and the entire group over age 65. This is about 40 million people.

The new grant programs will be administered by the Center for Disease Control (CDC) under procedures similar to those in effect for the Childhood Immunization Grant Program. The program will provide financial support to the states to cover both purchases of vaccine and administrative expenses.

Funding will be based upon the percentage of the high-risk population in each state, variations in the cost of operating in each state, and the scope and adequacy of the state's proposed program.

In the first two years of the program, the federal government expects to pay approximately two-thirds of the costs. Thereafter, federal funding will provide about 50% of the program costs.

CDC will urge participating states to seek to increase the proportion of high-risk individuals who are immunized against the prevalent flu strains from the present average of 20% to 40% during the first two years of the program. By fiscal year 1981, CDC hopes that 60-70% of high-risk persons will be immunized.

Physicians' fees increased in January

Physicians' fees increased 0.7% in January, according to the newly released Consumer Price Index. That increase matched the increases in the all services component of the CPI, while the all items component rose by 0.4%.

The 0.7% increase in physicians' fees followed increases of 0.8% in December and 0.6% in November.

During January, the medical care index increased by 0.9%, after a 0.6% increase in December and a 0.4% rise in November. The hospital service charge index rose 1.5% in January, after rising 1.1% in December and 0.4% in November.

Charges for a hospital semi-private room rose 1.7% in January as compared with a 1.0% increase in the previous month and a 0.3% increase in November.

Sixty-four Texas physicians active on AMA councils and committees

During 1977, 64 Texas physicians and students held positions of leadership in the American Medical Association.

Holding elective offices were Charles Max Cole, MD, Dallas, AMA Board of Trustees; Milton V. Davis, MD, Dallas, Council on Constitution and Bylaws; M. T. Jenkins, MD, Dallas, Council on Medical Education; Stanley J. Dudrick, MD, Houston, Council on Scientific Affairs; and Nancy W. Dickey, MD, Houston, Council on Medical Service.

In addition to the 20 Texas delegates and alternates representing the TMA, four Texas physicians served as delegates representing scientific sections. These include M. T. Jenkins, MD, Dallas, anesthesiology; Henry A. Holle, MD, Houston, preventive medicine; Coleman Jacobson, MD, Dallas, dermatology; and Whitney G. Sampson, MD, Houston, ophthalmology.

Serving on AMA councils and committees in appointive positions were Joseph T. Ainsworth, MD, Houston, and William J. Mangold, MD, San Antonio, Council on Legislation; Joseph T. Painter, MD, Houston, Council on Long-Range Planning; Jerry C. Marcontell, MD, Houston, Ad Hoc Committee on Services to Young Physicians; Charles E. Gibbs, MD, San Antonio, Committee on Maternal and Child Care; Nicholas C. Hightower, MD, Temple, Council on Continuing Physician Education; Edward N. Brandt, Jr, MD, Austin, Advisory Committee on Continuing Medical Education; John Kelsey, MD, Houston, Henry McIntosh, MD, Houston, and M. T. Jenkins, MD, Dallas, Interspecialty Advisory Board; and Raymond D. Pruitt, MD, Houston, Advisory Committee on Graduate Medical Education.

Scientific Section Council officers were Warren Raymer, MD, Houston, allergy; M. T. Jenkins, MD, Dallas, and Howard L. Zauder, MD, San Antonio, anesthesiology; Coleman Jacobson, MD, Dallas, dermatology; Milton V. Davis, MD, Dallas, diseases of the chest; Sam A. Nixon, MD, Houston, family and general practice; George Ehni, MD, Houston, neurological surgery; Herbert C. Allen, MD, and John A. Burdine, Jr, MD, Houston, nuclear medicine; Whitney G. Sampson, MD, Houston, and George W. Weinstein, MD, San Antonio, ophthalmology; John A. Murray, MD, Houston, orthopedic surgery; Robert F. Peterson, MD, Temple, pathology; Richard S. Materson, MD, Houston, physical medicine and rehabilitation; Simon Fredericks, MD, Houston, and Kenneth E. Salyer, MD, Dallas, plastic, reconstructive, and maxillofacial surgery; Henry A. Holle, MD, Houston, preventive medicine; and Richard G. Lester, MD, Houston, radiology.

Edward N. Brandt, MD, Austin, served as vice-chairman of the Section on Medical Schools. Russell W. H. Kridel, MD, Houston, served as alternate delegate to the AMA House of Delegates from the Resident Physicians Section. William E. Golden, Houston, served as alternate delegate to the AMA House from the Student Business Section. Jerry Cade, Dallas, served as Region IX Trustee to the American Medical Student Association. John M. Smith, Jr, MD, San Antonio, served as a member of the AMPAC board of directors.

Serving on residency review committees were J. Fred Mullins, MD, Galveston, dermatology; James D. Murphy, MD, Fort Worth, general practice; William K. Clark, MD, Dallas, neurological surgery; Vernie A. Stembridge, MD, Dallas, pathology and nuclear medicine; John A. Buesseler, MD, Lubbock, ophthalmology; Robert A. Murray, MD, Temple, orthopedic surgery; Byron J. Bailey, MD, Galveston, otolaryngology; Edward M. Krusen, MD, Dallas, physical medicine and rehabilitation; A. D. Catterson, MD, Houston, preventive medicine; George L. Jordan, Jr, MD, Houston, surgery; and Milton V. Davis, MD, Dallas, thoracic surgery.

National medical organizations created by the AMA included several Texas physicians as members. M. T. Jenkins, MD, Dallas, served on the Coordinating Council on Medical Education. C. W. Daeschner, MD, Galveston, served on the Liaison Committee on Continuing Medical Education. Michael DeBakey, MD, Houston, was a member of the National Commission on the Cost of Medical Care. Charles Max Cole, MD, Dallas, was appointed to serve on the National Joint Practice Commission.

Serving on the editorial boards of specialty journals were C. W. Daeschner, Jr, MD, Galveston, *American Journal of Diseases of Children;* B. R. Alford, MD, chief editor, Robert E. Fechner, MD, and William K. Wright, MD, all of Houston, *Archives of Otolaryngology.*

The Texas Delegation to the AMA has an active committee on nominations, and encourages county medical societies and individual TMA members to submit recommendations on physicians to serve on AMA councils and committees.

More than 2,000 physicians licensed in Texas in 1977

A record 2,441 physicians were licensed in 1977 by the Texas State Board of Medical Examiners. The number represents an increase of 33% over those granted licenses in 1976.

The board licensed 2,363 doctors of medicine and 78 doctors of osteopathy, including 835 who were granted licenses after taking the examination. Physicians who secured licenses by reciprocity numbered 1,606.

The new physicians include 977 graduates of foreign medical schools. There were 798 graduates of US medical schools who received licenses, 588 graduates of Texas medical schools, and 78 graduates of schools of osteopathy.

HEW will issue list of payments for Medicare services

HEW's costly list of payments to physicians for Medicare services during 1977, now being compiled by carriers throughout the country, will be useless to the public.

The list will not show how much physicians actually received, and what it does show will be wide open to question and subject to misinterpretation, according to the American Medical Association.

HEW delayed the project for a few days late in January, but then ordered the carriers to begin the work. The compilation was scheduled to become available for public inspection about April 30 in the carriers' offices and at HEW's Baltimore and regional offices.

One problem with the list is that it will include a figure totaling payments made to all beneficiaries for each physician's non-assigned claims, but the carriers will not be able to verify that the physician identified with the figure ever got the payment. Another problem is that the figures for both assigned and non-assigned claims will not include the Medicare deductible and coinsurance amounts, and the non-assigned claim figures will not show the reasonable charge reductions.

Each physician who had Medicare patients is getting a letter from the carrier showing these figures and is being asked to report any discrepancies within 30 days. HEW has thus shifted the burden of accuracy to the physicians, but without giving the physicians the information needed to find discrepancies. No breakdown of the non-assigned total figure is possible under the Privacy Act.

The new compilation is HEW's follow-up to the listing of last year, which the AMA found to be about 65% inaccurate. After apologizing for the department's work last year, HEW Sec Joseph Califano said he would make sure that financial information is accurate and relevant in future lists.

The AMA responded that the issuance of any such lists is an inherent violation of privacy and inevitably results in instances of gross injustice.

Early this year, commenting on the new project, the AMA told HEW it would seem that an administration with such a strong public commitment to cost-effective government would seriously question and find lacking the value of such an undertaking.

New hospital manual includes accreditation requirements

All hospital accreditation requirements are contained in the latest edition of *Accreditation Manual for Hospitals.*

Published by the Joint Commission on Accreditation of Hospitals, the standards became effective upon publication. Future editions of the manual will be published annually in August, beginning this year, and will contain requirements that become effective the following January.

The JCAH has also published a monograph on *Medical Staff Bylaws.*

Both the manual and the monograph may be ordered through the Publications Manager, JCAH, 875 N Michigan Ave, Chicago, Ill 60611.

Milford O. Rouse, medical leader, dies in Dallas

Milford O. Rouse, MD, 75, president of the AMA in 1967-68, died March 14 in Dallas.

Dr Rouse served as vice speaker of the AMA House of Delegates and was elected speaker in 1963. He served as president of the Southern Medical Association and was elected president of the Texas Medical Association in 1956.

Texas Medicine ranks high in readership survey

Texas Medicine, the monthly scientific journal of the Texas Medical Association, has ranked high in a readership survey by the State Medical Journal Advertising Bureau and its sales representative, The Williams & Wilkins Company.

The survey provided measurements of reading frequency, reading patterns, time of reading, and attention paid to advertising. A sample of 200 TMA members was selected randomly by computer, with 115, or 58%, returning their single page questionnaire.

Survey results showed that 77% had read the July 1977 issue (the single issue sampled); average readership of four issues is 79%; 59% read four out of four issues; and 96% read at least one out of four issues.

In determining readership habits, 54% said they read articles of interest and look through remaining pages; 34% read the table of contents and articles of interest; 11% skim pages; and 1% read it from cover to cover.

When asked if they wanted to continue to receive *Texas Medicine,* 92% said yes. The average reading time per issue was 28 minutes. When asked with what regularity they pay attention to the advertisements, 13% said regularly, 57% said occasionally, 21% said seldom, and 9% said never.

Southwestern will have center for study of genetic diseases

A center for the study of genetic diseases has been approved for The University of Texas Health Science Center at Dallas by the UT System Board of Regents.

The proposal calls for using sophisticated and fundamental genetic and biochemical techniques to study the genetic diseases of man.

The new center will be directed by Michael S. Brown, MD, the Paul J. Thomas Professor of Medicine, in Dallas.

The center will include faculty members from the departments of biophysics and medicine and members of other departments with a direct role in the study of genetic diseases.

Texas Medical Association will sponsor management workshops in June

The Texas Medical Association will sponsor a series of practice management workshops for established physicians June 6-9 in four Texas cities.

The workshops, "Financial Control of Your Medical Practice," will be in Lubbock June 6, El Paso June 7, Houston June 8 and Dallas June 9.

Cost of the workshops conducted by Conomikes Associates is $62.50.

For more information contact Paul D. Gray, Department of Medical Service, Texas Medical Association, 1801 N Lamar Blvd, Austin, Tex, 78701.

Texas Medicine announces medical writing awards competition

Texas Medicine, the monthly news and scientific journal of the Texas Medical Association, is sponsoring its 13th annual medical writing awards competition.

The two new categories of competition include Category A for a paper written in a training situation by a Texas medical student, graduate student, resident, or fellow under age 35, and Category B for a paper written by any Texas physician under age 35 not in a training position.

The two winners will receive a $250 cash award and publication of the articles in *Texas Medicine.*

Deadline for entries is Aug 1, 1978. Manuscripts should be sent to the Executive Editor,

Texas Medicine, 1905 N Lamar Blvd, Austin Tex 78705.

Articles must deal with a subject within the realm of the basic sciences or clinical medicine and must be original and unpublished. No minimum or maximum length is required. Criteria for judging will be excellence of scientific work and competence in writing.

For more information call or write *Texas Medicine* Department, 1905 N Lamar Blvd, Austin, Tex 78705, telephone (512) 477-6704.

AMA-ERF will sponsor national research forum in Galveston

Four student research forums will be funded and co-sponsored this year by the AMA Education and Research Foundation.

The AMA-ERF Board of Directors has granted $41,412 to The University of Texas Medical Branch in Galveston to finance three regional forums and a national forum. The regional forums will be in Miami, Omaha and Carmel, Calif.

The national forum will be in Galveston. Faculty advisory for the program is Edward N. Brandt, Jr, MD, vice president for health affairs of the University of Texas System. Dr Brandt is vice chairman of the AMA Section on Medical Schools and a member of AMA Advisory Committee on Medical Education. He also serves as chairman of the TMA Task Force on Access to Health Care and as a consultant to the TMA Council on Medical Education and Hospitals.

Texas Rehabilitation Commission offers programs explaining disability

Two programs explaining how the Texas Rehabilitation Commission (TRC) determines disability are available to county medical societies, hospital staffs, and other physician groups in Texas.

The Texas Medical Association's Committee on Rehabilitation reviewed these programs and considered them to be of excellent educational value.

TRC has prepared this material specifically to provide physicians with information about, and understanding of, the way that a client's disability is determined for purposes of rehabilitation services.

John F. Wright, professional relations supervisor for TRC's Disability Determination Division, will schedule the 18-minute slide presentation and 9-minute videotape, together with a question-and-answer resource person, for physician audiences.

For more information and for scheduling, write John F. Wright, Professional Relations Supervisor, Disability Determination Division, TRC, P O Box 2913, Austin, TX 78769, or call, toll-free, 1-800-252-9680, ext 209.

Coming next month

Articles for the June issue will be on anaphylaxis, jaundice, home therapy for hemophilia, and residency location.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media*	1978 through 3/31	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	− 1.1%	+38.0%	−23.1%	1.7%
Loomis-Sayles Mutual Fund	− 5.1%	+25.3%	−18.2%	4.3%
Mercantile Bank Equity Fund	− 5.8%	+44.0%	−28.9%	0
Mercantile Bank Fixed Income Fund	− 0.9%	+10.7%	− 8.2%	0
T Rowe Price Growth Stock Fund	− 7.0%	+33.9%	−33.8%	2.4%
T Rowe Price New Income Fund	− 1.7%	+ 6.6%	N/A	7.8%
Stein Roe & Farnham Balanced Fund	− 6.4%	+25.8%	−23.8%	3.8%
Standard & Poor 500 Stock Average	− 6.2%	+38.8%	−19.4%	
Dow Jones Industrial Average	− 8.9%	+34.8%	−18.5%	

*Includes reinvested capital gains distributions.

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CAPITAL COMMENTS

WASHINGTON: TEXAS DELEGATION ELECTS OFFICIALS. The Texas Congressional Delegation has elected Rep Charles Wilson, Lufkin, chairman of the Texas Delegation; Rep Jack Hightower, Vernon, vice chairman, and Rep Bob Gammage, Houston, secretary-treasurer. Rep Jim Wright, Fort Worth, now serves as House Majority Leader; four members of the 24-member delegation hold committee chairmanships; and 11 hold subcommittee chairmanships.

Editor's note: "Capital Comments" is prepared by Brown, Maroney, Rose, Baker & Barber, Attorneys at Law, TMA General Counsel, to highlight current items of interest relating to health matters in the US Congress federal agencies, state legislature, and Texas administrative agencies.

AUSTIN: LICENSURE BY EXAMINATION. The Texas State Board of Medical Examiners is considering amendments to rules relating to licensure by examination. The proposed amendments involve clarification of the requirements for retaking the FLEX examination by physicians in Texas. Now, regulations state that once a physician has been unsuccessful in passing the FLEX examination on three occasions, completes the required postgraduate training, and waits one year, he must take the entire FLEX examination again even though he may have passed part of it. The proposed amendment requires examinees who fail in a partial or complete examination to repeat the full day of the examination in which the failure occurred. If an examinee fails the FLEX examination three times, that person cannot take it again until the board accepts evidence of additional training. The examinee then may apply one more time for the FLEX examination. If the examinee fails this time, he will be allowed to sit for the examination again only at the board's discretion. Public comment on the proposed amendment is invited and may be submitted to the Texas State Board of Medical Examiners, Southwest Tower Building, 211 E 7th Street, Austin, TX 78701.

WASHINGTON: AMA ACTIVITIES. During 1977, the American Medical Association testified 22 times at hearings before Congress or federal agencies. In addition, the AMA submitted 90 statements to Congress, the White House, the National Governors' Conference, and federal agencies. Among the communications were 20 on drugs, seven on health manpower, and six on health planning.

WASHINGTON: CAT SCANNERS. HEW's Health Planning Bureau has notified state and local planning agencies of a new policy that would prevent hospitals from bypassing Section 1122 Review by purchasing computerized axial tomography scanners costing less than $100,000. Until recently, the price for CAT equipment was as much as $600,000. Now some scanners are available for less than $100,000. The planning bureau has pointed out that the regulations also trigger review when a capital expenditure results in a new diagnostic service in a health care facility or health maintenance organization.

WASHINGTON: CONFIDENTIALITY OF MEDICAL RECORDS. In an unusually harshly worded news release, Sen Herman Talmadge, chairman of the Senate Finance Health Committee, has announced postponement of a hearing on con-

fidentiality of medical records. The delay is due, Talmadge said, ". . . to the continued failure of HEW to submit legislative recommendations which they promised to provide in October of last year and after failing to meet that date by March 1 of this year." Talmadge announced that the repeated failure of HEW to honor its commitment ". . . creates serious questions of credibility and generates skepticism whether HEW will deliver what it promises to the Congress."

WASHINGTON: HEALTH INSURANCE DRUG BENEFIT PROVISIONS. The Supreme Court has agreed to decide whether federal antitrust laws apply to health insurance drug benefit provisions. At issue is the Blue Shield of Texas deductible system under which subscribers pay a $2 deductible fee to participating pharmacists with the remainder of the cost of prescriptions picked up by insurance. Subscribers must pay one-fourth of the cost of the prescription when dealing with non-participating pharmacists. Eighteen independent pharmacists brought the suit against Blue Shield, contending the agreement with participating pharmacists violated the antitrust laws. Blue Shield maintains that it is less expensive to process claims filed by pharmacies than by numerous individual subscribers and that the contracts with the pharmacies make it easier to predict the costs of the drugs. Subscribers who have their prescriptions filled by non-participating pharmacies must pay the pharmacist the full price and then file their own claim with Blue Shield. The 18 non-participating pharmacy owners who filed the antitrust suit charged that the Blue Shield plan amounted to price fixing and was designed to put out of business those pharmacies that do not participate. The Fifth Circuit Court of Appeals upheld the independent pharmacists. A key question is whether the Texas system is covered under a federal law that allows states wide powers over insurance, free of federal interference.

WASHINGTON: MEDICAL EDUCATION. A one-third reduction in capitation assistance for medical education and a meager 1.5% increase in funding for the National Institutes of Health were proposed in President Carter's budget for fiscal year 1979. In letters last year to the Office of Management and Budget and Congress, the AMA had urged that the NIH budget be increased 9% over the fiscal year 1978 budget. The AMA also recommended the following increases for other federal health programs: $50 million for maternal and child health; $10 million for family planning; $4.5 million for migrant health; $8 million for the National Health Service Corp; $15 million for emergency medical services; $14 million to combat venereal diseases; $13 million for immunization; $2.5 million for lead-based paint poisoning prevention; $7 million for occupational health; $60 million for mental health; $25 million to combat alcoholism; $13.2 million for health professions education; $80 million for aging; $30 million for the Food and Drug Administration; and $40 million for Indian health services.

WASHINGTON: CHAMBER OF COMMERCE RECOMMENDATIONS. The National Chamber of Commerce has recommended several steps to curb the rising cost of health care. The chamber has recommended joining health systems agencies, serving on hospital boards, and working with insurance companies to develop benefit packages emphasizing more cost sharing and covering preventive health

related services. The chamber has also recommended development of alternative delivery systems such as health maintenance organizations and decentralized health care training and delivery, and removal of restrictive state laws limiting the flexibility of providers and carriers to implement innovative health care programs.

WASHINGTON: DRUG COVERAGE. Rep Henry Gonzales (D Tex) has introduced HR 10168, a bill which would provide free drugs for all persons over 65, regardless of whether they qualify for Medicare-Medicaid or Social Security. The Medicaid program, Rep Gonzales said, has fallen short in the area of providing drugs. It does not provide coverage for drugs needed for treatment of chronic illness such as hypertension, diabetes, arteriosclerosis, and others; the elderly must purchase the drugs needed to treat these illnesses out of their own pockets. "In fiscal 1976," he said, "those over 65 expended $2.78 billion for drugs. Only 14% of this total was paid by Medicaid and other sources; 86% came out of the pockets of the elderly." Gonzales explained his bill would cover all residents of the US over 65 and would be administered by a separate unit to be established under the Department of HEW, as the Prescription Drug Benefit Council. The Council would advise and assist the Secretary with administrative policy and long-term plans for the approved benefit list, as well as the allowable reimbursement cost for these drugs. No benefits would be available for two years after the bill becomes law." He added that "the program would be financed by general revenues through appropriations process and rational cost controls have been built into the bill."

WASHINGTON: MEDICAID PROGRAM. At a meeting of the National Conference of State Legislators, Dr Keith Weikel, acting director of Medicaid Bureau Health Care Financing Administration, stated that many of the Medicaid problems of eligibility, fraud, and abuse can be attributed to complex regulations, poor management, too much paperwork and payment delays, difficulties in prosecuting fraud, and over-demand for services by recipients. Dr Weikel said the Medicaid bureau is presently redrafting all federal Medicaid regulations in an attempt to make them more understandable.

MARYLAND: EMERGENCY ROOM PHYSICIANS. In a case involving the vicarious liability of a hospital for the negligent acts of an emergency room physician, the hospital argued non-liability on grounds that the emergency room physicians were independent contractors and no master-servant relationship existed. A Maryland Court of Appeals has ruled that, because the emergency room was a physical part of the hospital and because the plaintiff was not put on notice that the various departments of a modern hospital are in fact franchised out to various independent contractors, the hospital "represented to the decedent that the staff of the emergency room were its employees, thereby causing the decedent to rely on the skill of the emergency room staff, and that the hospital is consequently liable to the decedent as if the emergency room staff were its employees." The ruling comes from *Mehlman v Powell,* No. 39, Maryland Court of Appeals, Oct 28, 1977.

WASHINGTON: COMPUTER SECURITY. A recent study of HEW's computer data security shows that the average compliance with security standards is only 36.9%. The study, a six-month audit by an HEW task force, cites the risk involved in computer systems: "Due to the nature of most HEW personal data, the team believes that the potential is very high for both harm to individuals and fraudulent alteration of data if the management group fails to enforce standards." The standards are designed to provide protection for personal information under the requirements of the privacy act of 1974, but the task force said, "Systems security in HEW was far from meeting minimum acceptable standards." The task force report noted that HEW has begun a program "to correct all violations" and that the program would be complete within 11 months.

MICHIGAN: COST OF GOVERNMENT REGULATIONS. A recently completed study verifies that government regulations are costing hospitalized patients added dollars. Conducted by the Michigan Hospital Association, the study used an independent methodology developed by the accounting firm of Arthur Young & Co. to measure direct costs attributable to regulation. It can be applied in hospitals throughout the United States. In Michigan, six federal regulations are costing patients $24 for an average hospital stay. Nationwide, based on this study, the cost of compliance with the six regulations studied amounted to nearly $800 million in 1977, a government cost passed directly to the hospital patient. The six areas studied were utilization review, physical plan codes, personnel management, the medical arbitration program, certificate of need, and Medicare-Medicaid reimbursement mechanics. A benefit of the established methodology is that it can be applied to regulations to gauge their cost implications before they become law.

WASHINGTON: HOSPITAL PRICES. Hospital prices rose less last year than in 1976. Despite a spurt in the December Consumer Price Index listing for hospital service charges, the Labor Department's year-end calculations for 1977 show that the hospital charge increase pattern has moderated somewhat the past two years. The final CPI listing for hospital service charges at the end of last year was a 10.4% increase for the year. This compares with an increase of 11.4% during 1976 and 13.0% for 1975. The medical care services index increase for 1977 was 9.0%, compared with 10.7% the previous year. CPI figures do not measure inflation caused by greater intensity of services, however; they reflect only changes in charges.

WASHINGTON: MATERNAL AND CHILD HEALTH. Rep Paul Rogers (D-Fla) and Rep Tim Lee Carter (R-Ky) have introduced HR 10704, the 1977 amendments to the Maternal and Child Health and Crippled Children's Service Act. The new bill, developed by the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, and the American Medical Association, is designed to expand and improve the federal program of maternal and child health services. The legislation increases available funding for grant estates and for special projects of local, regional, and national significance. The legislation also introduces organizational changes to coordinate activities in the identification and treatment of pregnant women, mothers and their infants, and children, who have needs for special services.

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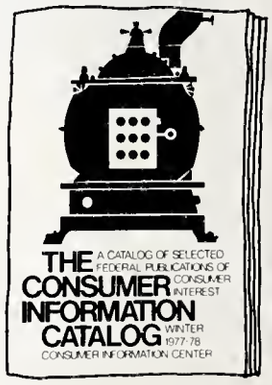

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A classical Italian menu, including

Scaloppine Zia Teresa
Scallops of veal sauteed with prosciutto ham, provolone cheese and bell tomatoes

Bistecca Peperonata
Broiled peppered New York strip served with green peppers, tomatoes, baby onions, and mushrooms in a red wine sauce

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Fresh Blue Point oysters breaded and baked in a light wine butter sauce

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Fitness
Washington, D.C. 20201

BRIEF SUMMARY OF
PRESCRIBING INFORMATION

ANTIMINTH® (pyrantel pamoate)
ORAL SUSPENSION

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 μg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions: Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

More detailed professional information available on request.

ROERIG *Pfizer*
A division of Pfizer Pharmaceuticals
New York, New York 10017

When you're good people recognize you.

Highly effective
Single-dose convenience
Non-staining
Economical
Pleasant tasting

Antiminth®
(pyrantel pamoate)
equivalent to 50 mg pyrantel/ml
ORAL SUSPENSION

a drug of choice in pinworm infections

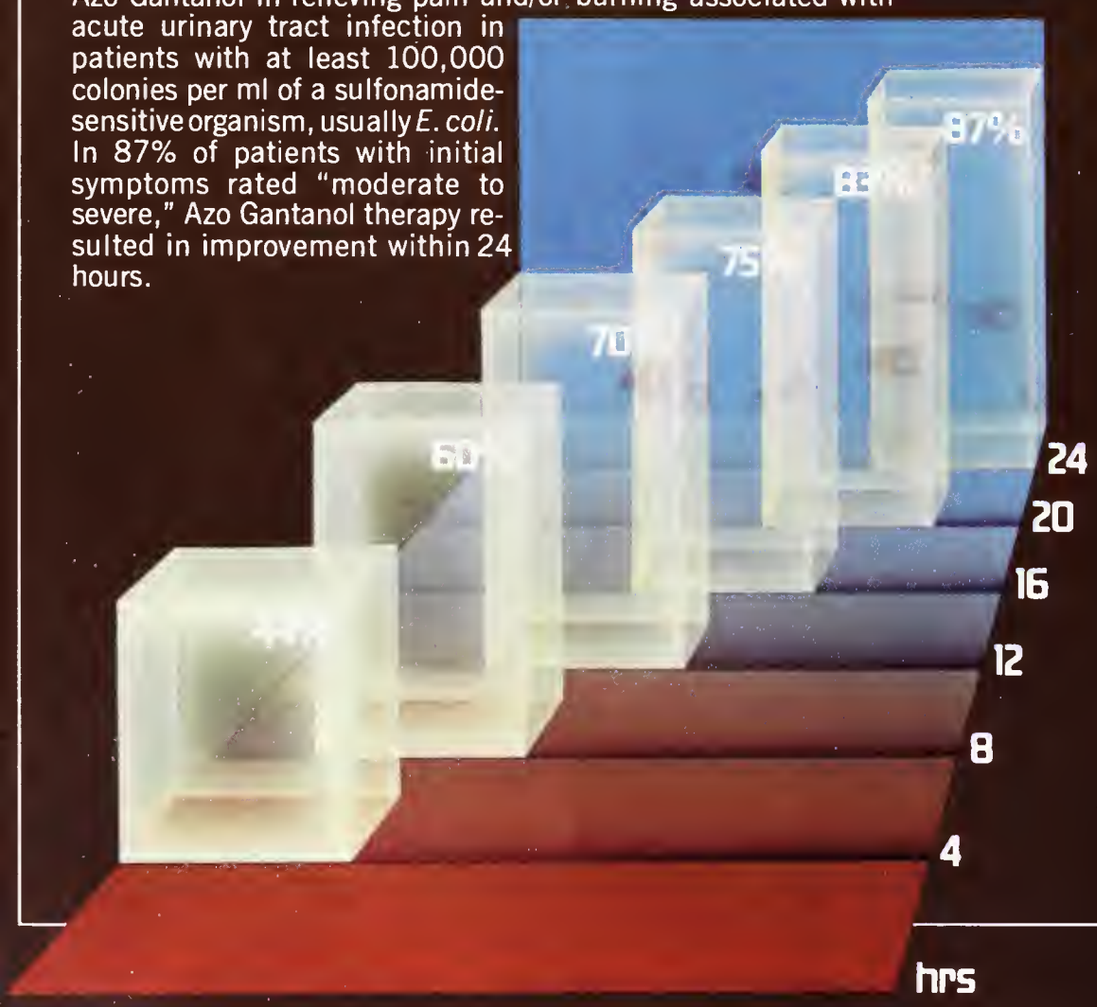
Please see brief summary of prescribing information on facing page.

©1977 LONE RANGER T.V., INC.

Important data on the pain of acute cystitis:

In 87% of patients studied (303 of 349), Azo Gantanol® reduced pain and/or burning within 24 hours*

A controlled, multicenter study assessed the efficacy of Azo Gantanol in relieving pain and/or burning associated with acute urinary tract infection in patients with at least 100,000 colonies per ml of a sulfonamide-sensitive organism, usually *E. coli*. In 87% of patients with initial symptoms rated "moderate to severe," Azo Gantanol therapy resulted in improvement within 24 hours.



Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis,* and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies. **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; a aminobenzoic acid to follow-up culture media. increasing frequency of resistant organisms lim the usefulness of antibacterials including sulfonamides.** Measure sulfonamide blood levels a variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term a during nursing period; because Azo Gantanol c tains phenazopyridine hydrochloride it is contra dicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G disturbances.

Warnings: Safety during pregnancy not establis Deaths from hypersensitivity reactions, agranulo tosis, aplastic anemia and other blood dyscrasi have been reported and early clinical signs (so throat, fever, pallor, purpura or jaundice) may i dicate serious blood disorders. Frequent CBC a urinalysis with microscopic examination are re ommended during sulfonamide therapy.

Precautions: Use cautiously in patients with im paired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria an stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypop thrombinemia and methemoglobinemia); *allerg reactions* (erythema multiforme, skin eruptions Stevens-Johnson syndrome, epidermal necrolys urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, phot sensitization, arthralgia and allergic myocarditi *G.I. reactions* (nausea, emesis, abdominal pai hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, periphe neuritis, mental depression, convulsions, ataxi hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, tox nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon). Due to certai chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hyp glycemic agents, sulfonamides have caused ra instances of goiter production, diuresis and hy glycemia. Cross-sensitivity with these agents m exist.

Dosage: Azo Gantanol is intended for the acut painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 G (2 tabs) B.I.D. for up to 3 days. If pain persist causes other than infection should be sought. After relief of pain has been obtained, continu treatment with Gantanol (sulfamethoxazole) m be considered.

NOTE: Patients should be told that the orange dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each cont ing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche
Nutley, New Jersey 07110

Fast pain relief plus effective antibacterial action

Azo Gantanol®

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

for the pain **for the pathogens**

*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.

MEETINGS

CURRENT NATIONAL MEETINGS

AMERICAN COLLEGE OF LEGAL MEDICINE, 18th International Conference, Stanford Court Hotel, San Francisco, May 3-6, 1978. Program theme is health care systems of the future; examines who, what will determine direction of America's health care system. Other sessions on computer technology, legal definition of death, medical education. Spouses program includes botanical magic tour, visit to Stanford University. Contact: 1340 N Astor St at 2608, Chicago 60610.

AMERICAN LUNG ASSOCIATION, 74th Annual Meeting, Sheraton-Boston Hotel, Boston, May 14-17, 1978. Symposium on sleep disorders in pulmonary medicine, Monday, May 15, includes discussion of sudden infant death. Other symposia cover respiratory distress syndrome, standardization of physiologic testing for determination of physical impairment due to respiratory disease. More than 200 papers to be presented during free communications sessions; topics include role of genetics in bronchial susceptibility to cigarette smoking; anxiety, depression and dyspnea in patients with chronic obstructive pulmonary disease; inactivation of alpha 1-antitrypsin by cigarette smoke. Contact: 1740 Broadway, New York 10019.

AMERICAN SOCIETY OF INTERNAL MEDICINE, Annual Meeting, Hyatt Regency, San Francisco. Scientific program examines rationing of care, effectiveness of government programs, new drug legislation, stress, holistic medicine. Meets criteria for 8 hours, Category 1, AMA Physician's Recognition Award. House of Delegates to consider such issues as cost containment, national health insurance, health planning, quality assurance. Contact: 535 Central Tower Bldg, 703 Market St, San Francisco 94103.

For other courses and symposia, see Continuing Education Courses, pp 49-56.

TEXAS MEDICAL ASSOCIATION

TMA's 111th Annual Session is May 11-14, 1978, in San Antonio. A comprehensive scientific program, including 22 section programs, offers opportunities to earn credit under Category 1 toward the AMA Physician's Recognition Award. Association business will be conducted during council, committee, board, and House of Delegates meetings, and TMA members may participate in reference committee hearings beginning at 10 am Thursday, May 12. Entertainment features include a physicians' and spouses' art exhibition, tennis and golf tournaments, and a German May Fest. Also, the TMA Auxiliary celebrates its 60th anniversary this year. La Mansion will host the Auxiliary's convention, which follows the theme, "Tradition is San Antonio." TMA members do not pay a registration fee for the session; non-member physicians will be charged $25. For further information regarding continuing education courses offered in conjunction with Annual Session, see pages 49-56.

Contact: C. Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin 78701.

AMERICAN ASSOCIATION FOR THORACIC SURGERY

The 58th Annual Meeting of the American Association for Thoracic Surgery is May 8-10, 1978, at the Hyatt Regency Hotel, New Orleans. The scientific program, which meets the criteria for 18 hours under Category 1 of the AMA Physician's Recognition Award, focuses on a variety of related topics. These include tracheobronchial mucoepidermoid carcinoma, combined therapy for small cell undifferentiated carcinoma of the lung, and long term survivors after resection of lung carcinoma. The entertainment highlight of the meeting is the President's Reception and dinner-dance in the Regency Ballroom of the Hyatt Regency, Tuesday, May 9.

Contact: Six Beacon St, Suite 620, Boston 02108.

MAY

AEROSPACE MEDICAL ASSOCIATION, New Orleans, May 8-11, 1978. Box 25082, Oklahoma City 73125.

AMERICAN ACADEMY OF FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY, Palm Beach, Fla, May 1978. ME Tardy, Jr, MD, Sec, 2800 Lake Shore Dr, Chicago 60657.

■ AMERICAN ACADEMY OF PEDIATRICS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. William S Conkling, MD, Chmn, Box 311, Navasota, Tex 77868.

AMERICAN ACADEMY OF PSYCHOANALYSIS, Atlanta, May 5-7, 1978. Ms C Bruskin, Exec Sec, 40 Gramercy Park N, New York 10010.

AMERICAN ASSOCIATION OF CLINICAL UROLOGISTS, Washington, DC, May 19-20, 1978. BH Farber, Jr, Admn Officer, 2017 Walnut St, Philadelphia 19103.

AMERICAN ASSOCIATION FOR THORACIC SURGERY, New Orleans, May 8-10, 1978. WT Maloney, Exec Sec, 6 Beacon St, Suite 620, Boston 02108.

■ AMERICAN COLLEGE OF CHEST PHYSICIANS, TEXAS CHAPTER, San Antonio, Tex, May 13, 1978. Charles B Shuey, Jr, MD, Pres, 3500 Gaston Ave, Dallas 75246.

AMERICAN COLLEGE OF LEGAL MEDICINE, San Francisco, May 5-7, 1978. Ms B Hanna, Exec Sec, 1340 N Astor St, Suite 2608, Chicago 60610.

AMERICAN LUNG ASSOCIATION, Boston, May 14-17, 1978. WF Roberts, Acting Mng Dir, 1740 Broadway, New York 10019.

AMERICAN PEDIATRIC SURGICAL ASSOCIATION, Hot Springs, Va, May 3-6, 1978. JA O'Neill, Jr, MD, Sec, Department of Pediatric Surgery, Vanderbilt University Hospital, Nashville, Tenn 37232.

AMERICAN PSYCHIATRIC ASSOCIATION, Atlanta, May 8-12, 1978. Dr M Sabshin, Med Dir, 1700 18th St NW, Washington, DC 20009.

AMERICAN PSYCHOANALYTIC ASSOCIATION, Atlanta, May 3-7, 1978. Ms H Fischer, Admn Dir, One E 57th St, New York 10022.

AMERICAN SOCIETY FOR GASTROINTESTINAL, Las Vegas, Nev, May 24, 1978. WT Maloney, Exec Sec, 6 Central Tower Bldg, 703 Market St, San Francisco 94103.

AMERICAN SOCIETY OF INTERNAL MEDICINE, San Francisco, May 4-7, 1978. WR Ramsey, Exec Dir, 535 Beacon St, Suite 620, Boston 02108.

■ FLYING PHYSICIANS ASSOCIATION, TEXAS CHAPTER, San Antonio, Tex, May 11, 1978. M Young Stokes III, MD, Pres, 331 W Morton St, Denison 75020.

■ INTERNATIONAL COLLEGE OF SURGEONS, TEXAS STATE SURGICAL DIVISION, San Antonio, Tex, May 11, 1978. Vincent T Caldarola, MD, Pres, 1001 Rosa Verde Towers, San Antonio, Tex 78205.

INTERNATIONAL SOCIETY OF AQUATIC MEDICINE, San Salvador, Bahamas, May 20-27, 1978. MD Rosco, MD, 611 S Kingsley Dr, Los Angeles 90005.

OKLAHOMA STATE MEDICAL ASSOCIATION, Oklahoma City, May 4-7, 1978. D Bickham, Exec Dir, 601 NW Expressway, Oklahoma City 73118.

SOCIETY OF BIOLOGICAL PSYCHIATRY, Atlanta, May 4-7, 1978. Dr AW Epstein, Sec-Treas, 1430 Tulane Ave, New Orleans 70112.

■ TEXAS AIR-MEDICS ASSOCIATION, San Antonio, Tex, May 11, 1978. David F Eanes, Jr, MD, Pres, 518 N Fifth St, Temple, Tex 76501.

■ TEXAS ASSOCIATION OF NEUROLOGICAL SURGEONS, San Antonio, Tex, May 12, 1978. Robert A Partain III, MD, Vice-Pres & Prog Chmn, 510 Madison Professional Bldg, San Antonio, Tex 78215.

■ TEXAS ASSOCIATION OF PHYSICIANS IN NUCLEAR MEDICINE, San Antonio, Tex, May 13, 1978. Stanley E Hodges, Jr, MD, Pres, 3434 Swiss Ave #20, Dallas 75204.

■ TEXAS ASSOCIATION OF PUBLIC HEALTH PHYSICIANS, San Antonio, Tex, May 11, 1978. John L Bradley, MD, Pres, Box 10736, El Paso, Tex 79997.

■ TEXAS DERMATOLOGICAL SOCIETY, San Antonio, Tex, May 12, 1978. James H Strauch, MD, Prog Chmn, 4K Medical Professional Bldg, San Antonio, Tex 78212.

■ TEXAS DIABETES AND ENDOCRINE ASSOCIATION, San Antonio, Tex, May 12, 1978. Jaime A Davidson, MD, Vice-Pres, 301 W Colorado, Dallas 75208.

■ TEXAS MEDICAL ASSOCIATION, Annual Session, San Antonio, Tex, May 10-14, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.

■ TEXAS NEUROLOGICAL SOCIETY, San Antonio, Tex, May 12, 1978. Harold Skaggs, Jr, MD, Pres, 801 W 34th St, Austin, Tex 78705.

■ TEXAS OCCUPATIONAL MEDICAL ASSOCIATION, San Antonio, Tex, May 11, 1978. Joseph F Peters, Jr, MD, Pres, Box 1616, Cleburne, Tex 76031.

■ TEXAS OPHTHALMOLOGICAL ASSOCIATION, San Antonio, Tex, May 12, 1978. Rodolfo E Margo, MD, Pres, Mid-Valley Medical Arts Building, Weslaco, Tex 78596.

■ TEXAS ORTHOPAEDIC ASSOCIATION, San Antonio, Tex, May 13, 1978. David P Green, MD, Prog Chmn, Division of Orthopaedic Surgery, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio, Tex 78284.

■ TEXAS OTOLARYNGOLOGICAL ASSOCIATION, San Antonio, Tex, May 12, 1978. Bernard L Yollick, MD, Vice-Pres, 5925 Forest Lane, Dallas 75230.

■ TEXAS PHYSICAL MEDICINE & REHABILITATION SOCIETY, San Antonio, Tex, May 12, 1978. Kenneth B Washburn, MD, Sec, 7703 Floyd Curl Dr, San Antonio, Tex 78284.

■ TEXAS RHEUMATISM ASSOCIATION, San Antonio, Tex, May 13, 1978. Alfred Miller, MD, Pres, 906 Oak Hills Medical Bldg, San Antonio, Tex 78229.

■ TEXAS SOCIETY OF ATHLETIC TEAM PHYSICIANS, San Antonio, Tex, May 12, 1978. C David Campbell, MD, Prog Chmn, 205 S 15th St, Corsicana, Tex 75110.

■ TEXAS SOCIETY OF COLON AND RECTAL SURGEONS, San Antonio, Tex, May 13, 1978. Raul Ramos, MD, Sec-Treas, 311 Camden, San Antonio, Tex 78215.

■ TEXAS SOCIETY OF PLASTIC SURGEONS, San Antonio, Tex, May 12, 1978. Robert W Wood, Jr, MD, Vice-Pres, 1213 Hermann Dr, Suite 885, Houston 77030.

JUNE

AMERICAN CANCER SOCIETY, INC, Seattle, Jun 29-Jul 1, 1978. 777 Third Ave, New York 10017.

AMERICAN DIABETES ASSOCIATION, Boston, Jun 11-13, 1978. JL Dugan, Jr, Exec Vice-Pres, 600 Fifth Ave, New York 10020.

AMERICAN MEDICAL ASSOCIATION, Annual Convention, St Louis, Jun 17-22, 1978. 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Louis, Jun 14-18, 1978. Ms L Loesel, Exec Dir, 1740 Broadway, New York 10019.

GEORGIA LUNG ASSOCIATION, Sea Island, Ga, Jun 14-18, 1978. Flay W Sellers, Managing Dir, 1383 Spring St, NW, Atlanta 30309.

ROCKY MOUNTAIN NEUROSURGICAL SOCIETY, INC, Colorado Springs, Colo, Jun 11-14, 1978. Harry Starr, MD, 3260 Fannin St, Beaumont, Tex 77701.

JULY

AMERICAN ACADEMY OF FAMILY PHYSICIANS, NEW MEXICO CHAPTER, Mescalero, NM, Jul 17-20, 1978. Box 456, Sunland Park, NM 88063.

AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE, Ann Arbor, Mich, Jul 10-15, 1978. Box 222, Morton Grove, Ill 60053.

INTERNATIONAL ACADEMY OF PHYSICIANS AND SURGEONS, Kyoto, Japan, Jul 2-7, 1978. Alfred Soffer, MD, Exec Dir, 911 Busse Highway, Park Ridge, Ill 60068.

ROYAL SOCIETY OF MEDICINE, London, Jul 23-28, 1978. Conference Office, 43 Charles St, Mayfair, London W1X 7PG, England.

AUGUST

ASPEN MUSHROOM CONFERENCE, Aspen, Colo, Aug 13-18, 1978. Beth Israel Hospital, 1601 Lowell Blvd, Denver 80204.

INTERNATIONAL SOCIETY FOR EXPERIMENTAL HEMATOLOGY, Chicago, Aug 27-31, 1978. Walter Fried, MD, Division of Hematology/Oncology, Michael Reese Hospital and Medical Center, 29th & Ellis Ave, Chicago 60616.

SEPTEMBER

AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE, New York, Sep 24-29, 1978. 2317 W Jefferson St, Suite 208, Joliet, Ill 60435.

AMERICAN CANCER SOCIETY, INC, National Conference on Care of the Child With Cancer, Boston, Sep 11-13, 1978. 777 Third Ave, New York 10017.

■ AMERICAN COLLEGE OF EMERGENCY PHYSICIANS, Houston, Sep 19-21, 1978. AE Auer, Exec Dir, 3900 Capital City Blvd, Lansing, Mich 48906.

AMERICAN MEDICAL ASSOCIATION, 38th Annual Congress on Occupational Health, Tucson, Ariz, Sep 14-16, 1978. Barbara S Jansson, Department of Environmental, Public, and Occupational Health, 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL ASSOCIATION, Medical Staff Leadership Seminar, New Orleans, Sep 29-30, 1978. Department of Hospitals and Health Facilities, 535 N Dearborn St, Chicago 60610.

AMERICAN SOCIETY OF INTERNAL MEDICINE, Orlando, Fla, Sep 29-30, 1978. 535 Central Tower Bldg, 703 Market St, San Francisco 94103.

■ BLACKFORD MEMORIAL LECTURES, Denison, Tex, Sep 9, 1978. John D Gleckler, MD, 211 N Fannin, Denison, Tex 75020.

■ FLYING PHYSICIANS ASSOCIATION, INC, Houston, Sep 9-14, 1978. Al Carriere, Business Counsel, 801 Green Bay Rd, Lake Bluff, Ill 60044.

■ SOUTH PLAINS CHAPTER, TEXAS ACADEMY OF FAMILY PHYSICIANS, Lubbock, Sep 23, 1978. Norma Porres, MD, Sec, 4005 24th St, Lubbock, Tex 79410.

■ **TEXAS MEDICAL ASSOCIATION, Fall Conference, Austin, Tex, Sep 22-24, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.**

■ TEXAS PEDIATRIC SOCIETY, Amarillo, Tex, Sep 15-16, 1978. Laurance N Nickey, MD, District Chairman, 1515 N Oregon St, El Paso, Tex 79902.

WORLD FEDERATION OF NUCLEAR MEDICINE AND BIOLOGY, Washington, DC, Sep 17-21, 1978. 1629 K St, NW, Suite 700, Washington, DC 20006.

OCTOBER

■ PANHANDLE DISTRICT MEDICAL SOCIETY, Amarillo, Tex, Oct 21, 1978. Carlie Umphres, Box 3276, Amarillo, Tex 79604.

SOCIETY FOR CLINICAL AND EXPERIMENTAL HYPNOSIS, Asheville, NC, Oct 17-22, 1978. Mrs Marion Kenn, Admin Dir, 129A Kings Park Dr, Liverpool, NY 13088.

NOVEMBER

AMERICAN SOCIETY OF CYTOLOGY, Miami, Nov 7-11, 1978. WR Lang, MD, Sec, Health Sciences Center, 130 S Ninth St, Suite 1006, Philadelphia 19107.

SOUTHERN MEDICAL ASSOCIATION, Georgia World Congress Center, Nov 11-14, 1978. 2601 Highland Ave, Birmingham, Ala 35205.

■ **TEXAS MEDICAL ASSOCIATION, House of Delegates, Austin, Tex, Nov 11-12, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin 78701.**

Attend the TEXAS EMERGENCY MEDICINE SYMPOSIUM

ACEP

MAY 21-24, 1978 FORT WORTH

Co-Sponsored by Texas Chapter, American College of Emergency Physicians

Monday, May 22

8:15	WELCOME		
8:30-10:00	Pediatric Respiratory Emergencies, Gerald Moore, M.D.	8:45-10:00	ALS Lecture
		8:45-10:00	Audio-Video Lab I
10:00-10:15	BREAK		
10:15-11:00	Pitfalls of Electrocardiography, Robert S. Capper, M.D.	10:15-12:00	ALS Lecture, continued
11:00-12:00	Even You Can Understand Administration, PANEL, Ralph E. Cross, Jr., and Jerry Moeller	10:15-12:00	Audio-Video Lab I, continued
12:00-1:00	LUNCH	Special Catered Lunch Exhibit Area	
1:00-3:00	Emergency Care of the Thermally Injured	1:00-3:00	ALS Performance Stations
		1:00-3:00	Audio-Video Lab II
3:00-3:15	BREAK		
3:15-5:00	Emergency Care of the Thermally Injured	3:15-5:00	ALS Performance Stations, continued
		3:15-5:00	Audio-Video Lab II, continued
7:00-8:30	Cocktail Reception		

Tuesday, May 23

8:10-9:00	Treating Snake Bites, Tom Glass, M.D.	8:00-9:50	Audio-Video Lab III
9:00-9:50	Plastic Surgical Techniques, Bob Sorokolit, M.D.		
9:50-10:10	BREAK		
10:10-11:00	Treat That Arrhythmia Right, Billy R. Pugh, M.D.	10:10-12:00	Audio-Video Lab III, continued
11:00-11:50	How to Treat Urologic Emergencies, William J. Frazier, M.D.		
11:50-1:30	LUNCH	Special Catered Lunch Exhibit Area	
1:30-3:00	Hyper and Hypo Electrolytemias, Thomas Dubose, Jr., M.D.	1:30-3:00	Audio-Video Lab IV
		1:30-3:00	Emergency Care of the Thermally Injured
3:00-3:30	BREAK	3:00-3:15	BREAK
3:30-4:30	Special Emergency Radiologic Procedures (CAT, Ultrasound and Nuclear Medicine), Herbert L. Steinback, M.D.	3:15-5:00	Audio-Video Lab IV, continued
4:30-5:15	Emergency Arteriography, Richard Harris, M.D.	3:15-5:00	Emergency Care of the Thermally Injured
5:30-6:30	Annual Business Meeting		
7:00-10:30	Tennis Night		

Wednesday, May 24

8:30-9:15	Vaginal Bleeding, James N. Martin, M.D.	8:00-10:00	ALS Stations
9:15-10:00	Endocrine Emergencies, R. Lee Forshay, M.D.	8:00-10:00	Emergency Care of the Thermally Injured
10:00-10:15	BREAK		
10:15-11:00	Dental Emergencies, Arlet R. Dunsworth, D.D.S.	10:15-12:00	ALS Stations, continued
11:00-12:00	Communications Between the Field and the Hospital, PANEL	10:15-12:00	Emergency Care of the Thermally Injured
		12:00-1:00	ALS Test
12:00	CONCLUSION	1:00	CONCLUSION

AUDIO-VIDEO LAB—a new direction in education. Approximately 20 physicians will be subdivided into 4 or 5 groups to role play in a crisis situation. Decisions and actions will be recorded and replayed for critique. This promises to be an excellent learning experience.

Emergency Care of the Thermally Injured
Monday P.M. and Wednesday A.M. Non-ALS
Tuesday P.M.—ALS Participants

REGISTRATION TO BE HELD SUNDAY, 2-6 P.M. AND MONDAY BEGINNING AT 7 A.M. AT TARRANT COUNTY CONVENTION CENTER

Category I Continuing Medical Education Credits Applied For

ACEP Registration Form

Name _____

Address _____

City/State _____ Zip _____

ACEP Membership # _____

☐ ALS and Tuesday a.m. Audio-Video Lab III

☐ ALS and Tuesday p.m. Audio-Video Lab IV

If you are not taking ALS or if ALS is full, pick a first and second choice for audio-video lab.

☐ I Mon. a.m. ☐ III Tue. a.m.

☐ II Mon. p.m. ☐ IV Tue. p.m.

	Postmarked Prior to 5-1 ALS	Postmarked Prior to 5-1 NON-ALS	Postmarked After 5-1 ALS	Postmarked After 5-1 NON-ALS	
☐ ACEP Member	150	120	165	135	_____
☐ Non-Member	180	150	195	165	_____
☐ Student		60		60	_____
☐ Tennis Night		7 per person			_____
				Total Amount Due	_____
				Total Amount Enclosed	_____

Mail To: TEXAS ACEP
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American Medical Association/127th Annual Convention
June 17-21, 1978/St. Louis

Continuing Medical Education Highlights!
The whole purpose of the AMA's CME program is to help you do what attracted you to medicine in the first place: provide the high quality care your patients need.

The scientific program is geared to help you do exactly that. Emphasis is on the *practical* aspects of new developments—clinical information of immediate use in your practice. Whether you're in primary care or a specialty, the large selection of courses allows you to focus on those areas in which you want to update your knowledge. The program features:

- 55 Category 1 Postgraduate Courses
- 30 Sessions, 20 Telecourses, 13 Clinical Dialogues, 3 Motion Picture Seminars — all Category 1 and FREE OF CHARGE
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- 3 AMA Auxiliary Sessions (no credit)

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New convention center. New hotels. New attractions. There's a whole new look and spirit in St. Louis today. With lots of things to do and see. Soar to the top of the nation's tallest monument, the Gateway Arch. . .beat your feet to rollicking ragtimers aboard a showboat. . .dine on gourmet French cuisine whose recipes came up the river from New Orleans. . .visit the hospitality room of the world's largest brewer. The new Spirit of St. Louis is yours to enjoy at the 127th AMA Annual Convention.

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A significant advantage of adjunctive
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Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.
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Librax is unique among G.I. medications in providing the specific antianxiety action of Librium® (chlordiazepoxide HCl) as well as the potent antisecretory and antispasmodic actions of Quarzan® (clidinium Br) for adjunctive therapy of irritable bowel syndrome* and duodenal ulcer.*
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Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

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Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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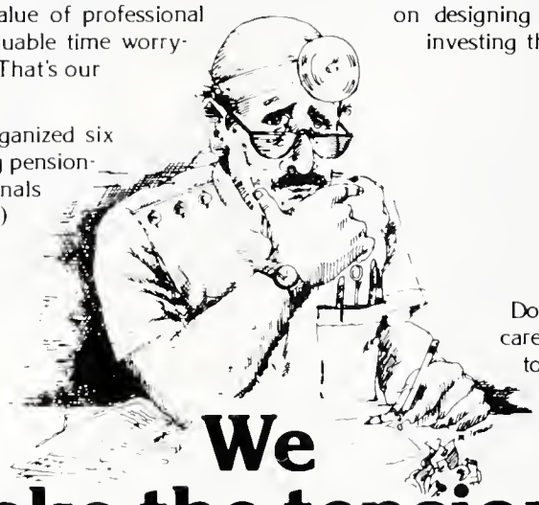

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CONTINUING EDUCATION COURSES

ANNUAL SESSION COURSES

EDITOR'S NOTE: The following courses are presented in conjunction with Texas Medical Association's Annual Session, May 11-14, 1978, in San Antonio. Each course is sponsored or co-sponsored by TMA. TMA members do not pay a registration fee for the Session; nonmember physicians will be charged $25. For information regarding these and other Annual Session courses, contact Mrs Dale Willimack, Director, Department of Annual Session, Texas Medical Association, 1801 N Lamar Blvd, Austin 78701.

Adolescents' Medical Care

Title: Conference on School Health
Location of Course: River Room 1, San Antonio Convention Center, 210 S Alamo
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 8 am-4 pm; 5 total course hours
Designed For: General practitioners; Specialists; School administrators; Nurses
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Aerospace Medicine

Title: Scientific Program, Flying Physicians Association, Texas Chapter; Texas Air-Medics Association
Sponsors: Flying Physicians Association, Texas Chapter; Texas Air-Medics Association
Location of Course: Room 36, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 9 am-4:15 pm; 5 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Allergy

Title: Section on Allergy
Location of Course: Fiesta Room 2, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-4:45 pm; 5 total course hours
Designed For: Specialists in Allergy
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Anesthesiology

Title: Scientific Program, Texas Society of Anesthesiologists
Sponsor: Texas Society of Anesthesiologists
Location of Course: Concepcion Room, La Mansion del Rio, 112 College St, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 9 am-4 pm; 5 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Arthritis & Rheumatism

Title: Symposium on Rheumatic Diseases with Focus on Back Pain
Sponsor: Texas Rheumatism Association
Location of Course: Mission Room, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; ½ day; Friday; 2-5:15 pm; 3 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Scientific Program, Texas Rheumatism Association
Sponsor: Texas Rhemuatism Association
Location of Course: Fiesta Room 8, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 8 am-5 pm; 6 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Cardiovascular Disease

Title: Basic Cardiopulmonary Resuscitation Training Program
Sponsor: American Heart Association, Texas Affiliate, Inc
Location of Course: Pasteur Hall, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978; Repeated May 12, 1978
Duration: Continuous; ½ day; Thursday, May 11, 1978, 1-5 pm; Friday, May 12, 1978, 8 am-12 pm; 4 total course hours
Fee: $40

Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, enrollee performs procedure, programmed instruction (self-teaching device), lecture, open question, panel

Title: Symposium on Cardiovascular Diseases
Location of Course: Room 31, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 8:30 am-5 pm; 6 total course hours
Designed For: Specialists in Cardiovascular Disease
Credit: AAFP Elective; Category 1 AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Advanced Cardiac Life Support Provider Course
Sponsor: American Heart Association, Texas Affiliate, Inc
Location of Course: Pasteur Hall, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12-13, 1978
Duration: Continuous; 1½ days; Friday, 1-5 pm; Saturday 8 am-12 pm, 1-5 pm; 12 total course hours
Fee: $120
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 12 hours
Teaching Methods: Audiovisual materials, enrollee performs procedure, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Cardiac Arrhythmias
Sponsor: American Medical Association, Chicago
Location of Course: Fiesta Room 1, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 14, 1978
Duration: Continuous; ½ day; Sunday; 8 am-1 pm; 5 total course hours
Fee: AMA members, $55; Nonmembers, $70
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Chest Disease

Title: Postgraduate Course on Chronic Obstructive Lung Disease
Sponsor: American Medical Association, Chicago
Location of Course: La Reina Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 9 am-5 pm; 6 total course hours
Fee: AMA members, $60; Nonmembers, $75
Designed For: Specialists in Chest Disease
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Section on Diseases of the Chest
Sponsors: American College of Chest Physicians, Texas Chapter; Texas Thoracic Society
Location of Course: Rooms A,B; San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 10 am-2:45 pm; 4 total course hours
Designed For: Specialists in Chest Disease
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Dermatology

Title: Scientific Program, Texas Dermatological Society
Sponsor: Texas Dermatological Society
Location of Course: Room 25, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13-14, 1978
Duration: Continuous; 2 days; Saturday-Sunday; 9 am-12 pm; 6 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Office Dermatology
Sponsor: American Medical Association, Chicago
Location of Course: La Duquesa Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; ½ day; Saturday; 8 am-1 pm; 5 total course hours
Fee: AMA members, $50; Nonmembers, $65
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours

Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Electrocardiography

Title: Postgraduate Course on Basic Electrocardiography
Sponsor: American Medical Association, Chicago
Location of Course: La Vista Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 9 am-5 pm; 6 total course hours
Fee: AMA members, $60; Nonmembers, $75
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Emergency Care

Title: Symposium on Emergency Medical Services
Sponsors: American College of Emergency Physicians, Texas Chapter; American Trauma Society, Texas Division
Location of Course: Room 33, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 9 am-4 pm; 4 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course Emergency Surgical Management
Sponsor: American Medical Association, Chicago
Location of Course: La Duquesa Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; ½ day; Saturday; 2-5 pm; 3 total course hours
Fee: AMA members, $30; Nonmembers, $45
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Endocrinology

Title: Scientific Program, Texas Diabetes and Endocrine Association
Sponsor: Texas Diabetes and Endocrine Association
Location of Course: Room 33, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 8:15 am-4:30 pm; 6 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Family Medicine

Title: Texas Academy of Family Physicians Seminar
Sponsor: Texas Academy of Family Physicians, Austin
Location of Course: Room 25, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 8 am-5 pm; 6 total course hours
Fee: $20
Designed For: General practitioners; Specialists
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Section on Family Practice
Location of Course: Room 25, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-5 pm; 5 total course hours
Designed For: General practitioners
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Forensic Medicine

Title: Medical Seminar Re Rape
Sponsor: Texas Rape Prevention and Control Project, Criminal Justice Division, Office of the Governor
Location of Course: Room 34, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; ½ day; Friday; 2-5 pm; 3 total course hours
Designed For: General practitioners; Specialists in Pathology, Obstetrics & Gynecology, Family Practice
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Gastroenterology

Title: Section on Digestive Diseases
Location of Course: Room 34, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 8:15 am-5 pm; 7 total course hours
Designed For: Specialists in Gastroenterology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 7 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

General Medicine

Title: Dialogue Program
Location of Course: Exhibit Hall, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11-13, 1978
Duration: Six 1-hour presentations; 6 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), open question

Geriatrics

Title: Symposium on Aging
Location of Course: Room 32, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; ½ day; Thursday; 8 am-12 pm; 4 total course hours
Designed For: General practitioners; Specialists in Geriatrics
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Internal Medicine

Title: Section on Internal Medicine
Location of Course: Fiesta Room 3, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-5 pm; 6 total course hours
Designed For: Specialists in Internal Medicine
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Recent Advances in Drug Therapy
Sponsor: American Medical Association, Chicago
Location of Course: Corte Real Room, Hilton Palacio del Rio, 200 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 9 am-4 pm; 5 total course hours
Fee: AMA members, $50; Nonmembers, $65
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Metabolism

Title: Postgraduate Course on Acid Base, Fluid and Electrolyte Balance
Sponsor: American Medical Association, Chicago
Location of Course: Fiesta Room 3; San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 14, 1978
Duration: Continuous; ½ day; Sunday; 8 am-1 pm; 5 total course hours
Fee: AMA members, $55; Nonmembers, $70
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Neurology

Title: Section on Neurology
Sponsor: Texas Neurological Society
Location of Course: Rooms A,B; San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11-12, 1978
Duration: Continuous; 1½ days; Thursday, 2:30-5 pm; Friday, 10 am-5 pm; 7 total course hours
Designed For: Specialists in Neurology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 7 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Neurosurgery

Title: Section on Neurological Surgery
Sponsor: Texas Association of Neurological Surgeons
Location of Course: Room 38, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12-13, 1978
Duration: Continuous; 1½ days; Friday, 10 am-5 pm; Saturday, 8:30 am-12 pm; 9 total course hours
Designed For: Specialists in Neurological Surgery

Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 9 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Obstetrics & Gynecology

Title: Symposium on Maternal and Child Health
Location of Course: Room 32, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; ½ day; Thursday; 2-4:30 pm; 3 total course hours
Designed For: General practitioners; Specialists in Obstetrics & Gynecology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Section on Obstetrics & Gynecology
Location of Course: Fiesta Room 4, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 10 am-4:30 pm; 5 total course hours
Designed For: Specialists in Obstetrics & Gynecology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Occupational Medicine

Title: Section on Occupational Medicine
Sponsor: Texas Occupational Medical Association
Location of Course: Room 22, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-5 pm; 5 total course hours
Designed For: Specialists in Occupational Medicine
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Ophthalmology

Title: Section on Ophthalmology
Sponsor: Texas Ophthalmological Association
Location of Course: Room 31, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12-13, 1978
Duration: Continuous; 2 days; Friday, 8:30 am-5 pm; Saturday, 8:30 am-4:30 pm; 12 total course hours
Designed For: Specialists in Ophthalmology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 12 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Orthopedic Surgery

Title: Scientific Program, Texas Orthopaedic Association
Sponsor: Texas Orthopaedic Association
Location of Course: River Room 1, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 8 am-5 pm; 6 total course hours
Designed For: General practitioners; Specialists in Orthopedic Surgery
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Otolaryngology

Title: Section on Otolaryngology
Sponsor: Texas Otolaryngological Association
Location of Course: Fiesta Room 1, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12-13, 1978
Duration: Continuous; 2 days; Friday, 8:30 am-5 pm; Saturday, 9 am-4:30 pm; 11 total course hours
Designed For: Specialists in Otolaryngology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 11 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Pathology

Title: Section on Pathology
Sponsor: Texas Society of Pathologists, Inc
Location of Course: Fiesta Room 5, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 8:15 am-4:30 pm; 6 total course hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Pediatrics

Title: Symposium on Developmental Disabilities
Sponsor: Texas Consortium for Developmental Disabilities, Texas Tech Research and Training Center in Mental Retardation
Location of Course: Lister, Galen Halls; San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; 1 day; Thursday; 8 am-4:30 pm; 7 total course hours
Designed For: General practitioners; Specialists in Family Practice, Pediatrics, Neurology, Psychiatry
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 7 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Section on Pediatrics
Sponsor: American Pediatrics Society, Texas Chapter
Location of Course: Fiesta Room 6, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 10 am-3:10 pm; 2 total course hours
Designed For: Specialists in Pediatrics
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 2 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Physical Medicine & Rehabilitation

Title: Section on Physical Medicine & Rehabilitation
Sponsor: Texas Physical Medicine & Rehabilitation Society
Location of Course: Fiesta Room 4, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 8:15 am-4 pm; 5 total course hours
Designed For: Specialists in Physical Medicine & Rehabilitation
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Plastic Surgery

Title: Section on Plastic, Reconstructive, and Maxillofacial Surgery
Sponsor: Texas Society of Plastic Surgeons
Location of Course: Fiesta Room 7, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12-13, 1978
Duration: Continuous; 1½ days; Friday, 10 am-5 pm; Saturday, 10 am-12 pm; 7 total course hours
Designed For: Specialists in Plastic Surgery
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 7 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Proctology

Title: Section on Colon and Rectal Surgery
Sponsor: Texas Society of Colon and Rectal Surgeons
Location of Course: Fiesta Room 3, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; ½ day; Saturday; 8:15 am-12:30 pm; 3 total course hours
Designed For: Specialists in Proctology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Psychiatry

Title: Section on Psychiatry
Sponsor: American Psychiatric Association, Texas District Branch
Location of Course: Room 33, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 10 am-4:20 pm; 5 total course hours
Designed For: Specialists in Psychiatry
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Public Health & Preventive Medicine

Title: Section on Public Health
Sponsor: Conference of City and County Health Officers
Location of Course: Room 32, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-5 pm; 5 total course hours
Designed For: Specialists in Public Health
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Fungal Infections for the Texas Practitioner
Sponsor: American Medical Association, Chicago
Location of Course: Fiesta Room 2, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 14, 1978
Duration: Continuous; ½ day; Sunday; 8 am-1 pm; 5 total course hours

Fee: AMA members, $55; Nonmembers, $70
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Radiology & Radioisotopes

Title: Section on Radiology
Location of Course: Fiesta Room 8, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 9:30 am-4:30 pm; 5 total course hours
Designed For: Specialists in Radiology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Postgraduate Course on Chest Roentgenograms
Sponsor: American Medical Association, Chicago
Location of Course: Galen Hall, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; ½ day; Saturday; 9 am-12 pm; 3 total course hours
Fee: AMA members, $30; Nonmembers, $45
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Surgery

Title: Scientific Program, International College of Surgeons, Texas State Surgical Division
Sponsor: International College of Surgeons, Texas State Surgical Division
Location of Course: Room 38, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 11, 1978
Duration: Continuous; ½ day; Thursday; 2-5 pm; 3 total course hours
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 3 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Other: Sex-Related Problems

Title: Postgraduate Course on Brief Counseling on Sex-Related Problems
Sponsor: American Medical Association, Chicago
Location of Course: Fiesta Room 4, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 14, 1978
Duration: Continuous; ½ day; Sunday; 8 am-1 pm; 5 total course hours
Fee: AMA members, $55; Nonmembers, $70
Designed For: General practitioners; Specialists
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Title: Section on Surgery
Location of Course: Fiesta Room 5, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 8:15 am-5 pm; 6 total course hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Urology

Title: Section on Urology
Location of Course: Room 26, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978
Duration: Continuous; 1 day; Friday; 10 am-5 pm; 5 total course hours
Designed For: Specialists in Urology
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 5 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Other: Nuclear Medicine

Title: Section on Nuclear Medicine
Sponsor: Texas Association of Physicians in Nuclear Medicine
Location of Course: Room 32, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 13, 1978
Duration: Continuous; 1 day; Saturday; 8:15 am-4:30 pm; 6 total course hours
Designed For: Specialists in Nuclear Medicine
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

Other: Sports Medicine

Title: Symposium on Sports Medicine
Sponsor: Texas Society of Athletic Team Physicians
Location of Course: River Room 1, San Antonio Convention Center, 210 S Alamo, San Antonio
Date: May 12, 1978

Duration: Continuous; 1 day; Friday; 8 am-5 pm; 6 total course hours
Designed For: Specialists in Sports Medicine; Trainers; Coaches
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, panel

OTHER MAY COURSES

Cardiovascular Disease

Cancelled: Echocardiology, UT Health Science Center at Houston, May 1978

Title: Cardiac Auscultation Clinic
Sponsor: Texas Heart Institute, Houston
Location of Course: Auditorium, Texas Children's Hospital, 6621 Fannin, Houston
Date: May 4, 1978
Duration: Continuous; ½ day; Thursday; 8 am-12 pm; 4 total course hours
Fee: $35
Designed For: General practitioners; Specialists in Internal Medicine, Family Medicine, Cardiovascular Disease, Pediatric Cardiology
Enrollment: Minimum, 20; Maximum, 75
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 4 hours
Teaching Methods: Audiovisual materials, programmed instruction (self-teaching device), lecture, open question, seminar, television
Contact: Robert J. Hall, MD, Medical Director, Texas Heart Institute, Box 20269, Houston 77025

Title: Ninth Annual Symposium, Texas Heart Institute
Sponsor: Texas Heart Institute, Houston
Location of Course: Auditorium, Texas Children's Hospital, 6621 Fannin, Houston
Date: May 4-6, 1978
Duration: Continuous; 2½ days; Thursday, 1-5 pm; Friday, 8 am-5 pm; Saturday, 8 am-12 pm; 16 total course hours
Fee: $120
Designed For: General practitioners; Specialists in Family Medicine, Cardiovascular Disease, Pediatric Cardiology, Cardiovascular Surgery
Enrollment: Maximum, 275
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 16 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel
Contact: Robert J. Hall, MD, Medical Director, Texas Heart Institute, Box 20269, Houston 77025

Emergency Care

Title: Texas Emergency Medical Spring Symposium
Sponsor: Texas Chapter, American College of Emergency Physicians
Location of Course: Fort Worth Convention Center
Date: May 21-24, 1978
Duration: Continuous; 2½ days; 6-8 hours instruction per day; Monday-Tuesday, 8 am-5 pm; Wednesday, 8 am-1 pm
Fee: Advanced Life Support Course, $150; Postgraduate courses, $120
Designed For: General practitioners; Specialists in Emergency Care
Credit: 19 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: John M. Geesbreght, MD, Harris Hospital, 1300 W Cannon, Fort Worth 76104

Ophthalmology

Title: Ophthalmology All-Day Clinical Conference
Sponsor: UT Health Science Center at San Antonio
Location of Course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio
Date: May 26, 1978
Duration: Continuous; 1 day; 8:30 am-4:45 pm; 6 total course hours
Fee: $25
Designed For: Specialists in Ophthalmology
Credit: Category 1, AMA Physician's Recognition Award; 6 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel
Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Physical Medicine & Rehabilitation

Title: 12th Comprehensive Review Course in Physical Medicine & Rehabilitation
Sponsors: Department of Physical Medicine, Baylor College of Medicine, Houston; Veterans Administration Hospital
Location of Course: Texas Woman's University, Texas Medical Center, Houston
Date: May 15-26, 1978
Duration: Continuous; 10 days; 2 weeks; 8 hours instruction per day; 77 total course hours
Fee: $175
Designed For: General practitioners; Specialists
Enrollment: Minimum, 50; Maximum, 100
Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; 77 hours
Teaching Methods: Audiovisual materials, lecture, panel, seminar, live clinic
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Scoliosis: what is it?

Jesse H. Dickson, MD; Wendell D. Erwin, MD

Generally, scoliosis has its initial onset in the early teens, appears primarily in girls, does not cause symptoms, can be adequately treated in the early stages, and progresses as long as growth continues. It can be detected easily by a simple 20- to 30-second examination if one is aware of the condition and its early appearance. If left untreated, progression of the scoliotic curve can be severe and the patient may be deformed and his or her activities and life span may be limited.

What Is Scoliosis?

Many wide-ranging views of scoliosis exist in the general population and among health professionals—from a painless and therefore harmless curvature of the spine to a grossly deforming disease that results in death. Obviously, the correct concept of scoliosis generally rests somewhere between and—in mild and severe cases—encompasses both extremes.

Scoliosis, a fixed lateral curvature of the spine with varying degrees of rotation, affects approximately 2% of the population of the United States. Only 8 to 15% of all scoliosis cases are the result of known causes such as poliomyelitis, muscular dystrophy, congenital bone abnormality, neurofibromatosis, Friedreich's ataxia, and other neuromuscular abnormalities. The remaining cases fall almost exclusively into the category of idiopathic scoliosis. The etiology remains a mystery and, for all practical purposes, it develops only in the growing child.

In some cases, idiopathic scoliosis is inherited, yet no one has been able to identify the specific factor or group of factors that is passed from one generation to the next. Although the etiology remains in the realm of hypothesis, a general pattern of facts concerning scoliosis is known. Children are not usually born with scoliosis, it most often develops while they are growing. In 90% of the cases, the initial onset occurs between 11 and 15 years of age; 85% of all scoliosis patients are girls; once a growing spine becomes scoliotic, the majority of curves will progress as the child grows; the scoliotic curve will progress in the adult if the curve has reached a severe magnitude (usually greater than 50° in the thoracic region, 40° in the lumbar region) by the time skeletal maturity is reached; and, severe curves in adults cause disability. Until researchers can discover the cause and implement preventive measures, early detection and treatment provide the most promising course of action.

Detection Through School Screening

The early detection of scoliosis in the general population can be extremely difficult for a variety of reasons. Children of this age group, 11 to 15 years old, usually are quite healthy and rarely see their physician. The only exception may be for an occasional sore throat or some form of trauma—conditions in which the physician's attention is not drawn to the back. This often leaves detection to the parents, most of whom have never heard of scoliosis, let alone how to recognize it in their child. This matter is further complicated by the fact that parents rarely have the occasion to look at their child's back at this age of modesty and independence. Finally, the child seldom notices the condition in the early stages because there is no pain or other easily noticed signs which would cause her to offer a

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1a. Examining positions for clinical diagnosis of scoliosis. In the standing position, the patient faces away from the examiner in a relaxed stance with arms by her side. This upright stance is best for judging balance by checking for position of the head, shoulders, and upper trunk in relation to the middle of the pelvis.

complaint. Consequently, the curve can progress to a serious magnitude before anyone recognizes the condition.

To offset this situation and insure treatment as early as possible, several school districts throughout the state have implemented screening programs. (A *Spinal Screening Program Handbook* is available to medical consultants—licensed physicians only—of school programs through the Scoliosis Research Society, Room 800, 430 N Michigan Ave, Chicago, Ill 60611.) School nurses or physical education teachers, or both, trained in the screening procedure usually conduct the brief examination. All students are examined in standing and forward-bending positions. Boys are asked to remove their shirts and girls to wear only a bra or small halter so that the back is fully visible.

Using this method, 10 to 12% of the children examined will have some imbalance or asymmetry, or both, in the backs, boys as frequently as girls. Any child with an abnormality of the back is referred to his or her family physician for further examination and, generally, x-ray films of the

1b. In the forward-bending position, the patient lets her arms hang down loosely in front of her. Asymmetry of the paravertebral area is best visualized if the examiner is eye level with the patient's back.

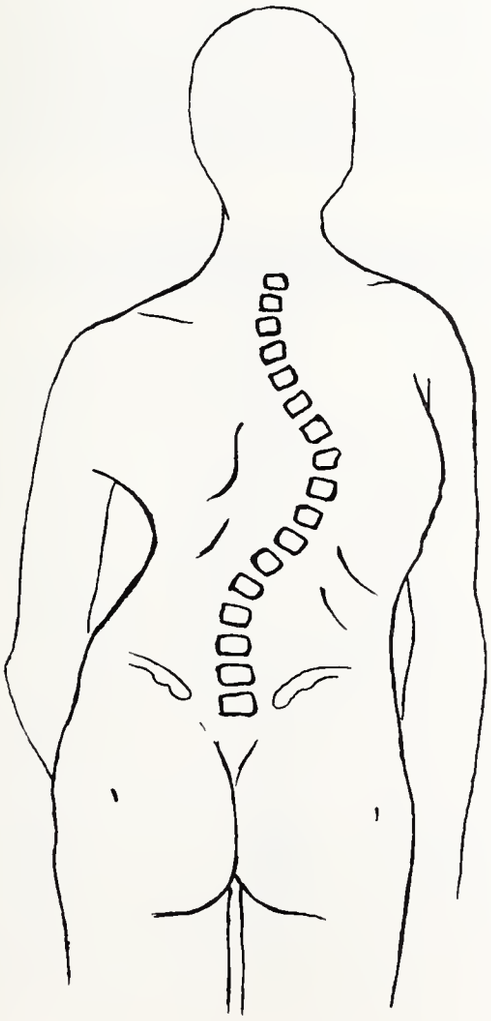
back. Of those referred only 2 to 3% will need treatment, in other words, observation, bracing, or surgery. The remaining referred patients are generally found to have no spinal abnormalities.

Diagnosis

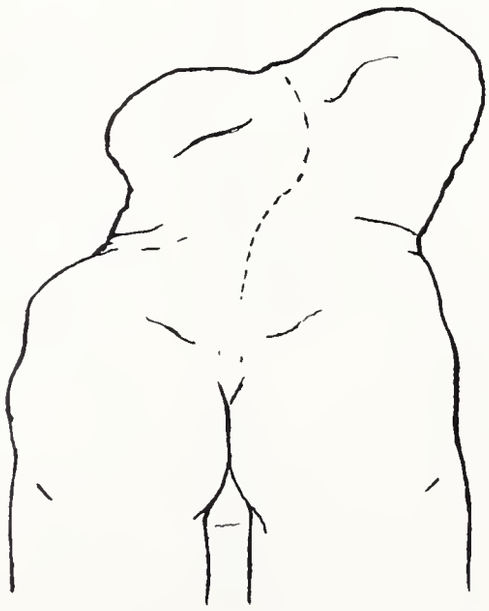
The diagnosis of scoliosis is both clinical and radiological. Clinically, one looks for imbalance and asymmetry of the back. Imbalance is best determined by having the patient stand in a relaxed position, arms by the side, and facing away from the examiner (Fig 1a) while the examiner checks for position of the head, shoulders, and upper trunk in relationship to the middle of the pelvis (buttocks crease). Asymmetry of the paravertebral area is best visualized with the patient bending forward with arms hanging down loosely in front of her (Fig 1b).

The four different types of curves—thoracic, thoracolumbar, lumbar, and double major—produce distinctly different clinical appearances of the back. When the patient is in an upright examining position, a right thoracic curve (Fig 2a) will cause the right shoulder to be elevated, the mid-thoracic region to shift to the right, and the right scapula to protrude from the back. In the forward-bending position (Fig 2b), the

2a. Right thoracic curve. In the standing position, the right shoulder will be elevated, the mid-thoracic region shifted to the right, and the right scapula protruding from the back.



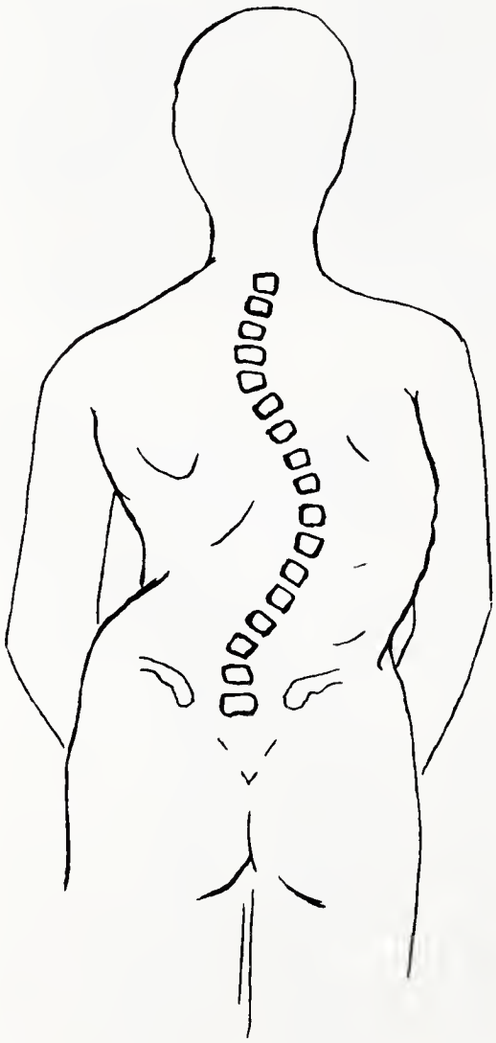
2b. In the forward-bending position, the right paravertebral area will be elevated, producing a rib hump.



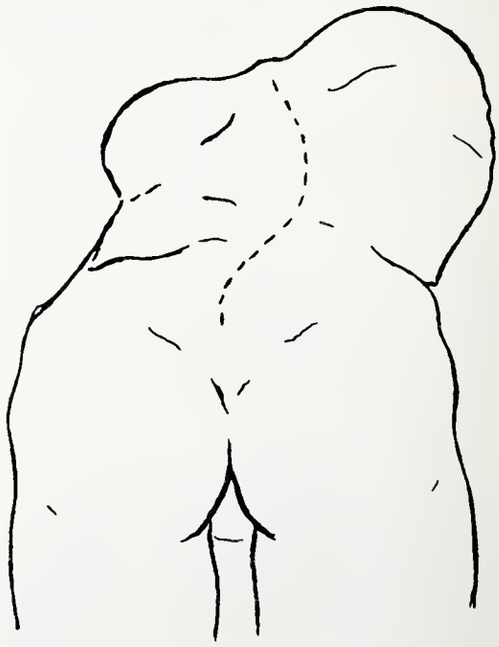
right paravertebral area will be elevated, producing a rib hump. The clinical appearance of a thoracolumbar curve (Fig 3a,b) is similar to that of the thoracic curve, but is in the lower region of the thoracic spine with more trunk shift. In the upright position, a left lumbar curve (Fig 4a) causes the right hip to be higher than the left and the left flank to have a flattened appearance. In the forward-bending position (Fig 4b), the paravertebral area on the left is prominent in the lumbar region. A double major curve presents a deceptively normal appearance in the standing position (Fig 5a) because the two curves balance the spine. However, upon closer inspection, prominence of the right thoracic and left lumbar paravertebral areas are seen with an elevated right hip and flattened left flank. In the forward-bending position (Fig 5b), the asymmetry of the paravertebral area becomes even more prominent. In almost all cases, checking for asymmetry in the paravertebral area while the patient is in the forward-bending position yields the best results in the clinical diagnosis of scoliosis.

Radiological examination requires an x-ray film of the spine in the standing position. Experience has shown that curves will be lessened by lying down, so the standing

3a. Right thoracolumbar curve. Similar in appearance to the thoracic curve, the thoracolumbar curve is in the lower region of the thoracic spine with more trunk shift.

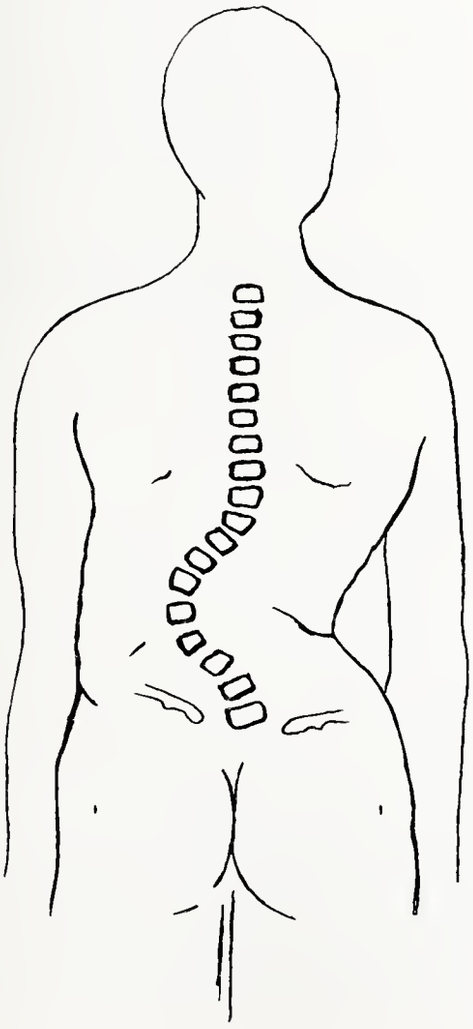


3b. In the forward-bending position, the right paravertebral area will be elevated, but at a lower level than with the right thoracic curve.



position is essential for a true determination of the curve magnitude when the spine is in its functional position. A 36-inch anteroposterior film taken from a distance of 183 cm (72 inches) (Fig 6) provides the best view of the entire spine. The curve is then measured using the Cobb technique. An exact measurement of degree is important so that if the curve increases, the progression can be detected easily and appropriate treatment begun—especially when dealing with a mild 15° to 20° curve in a growing child.

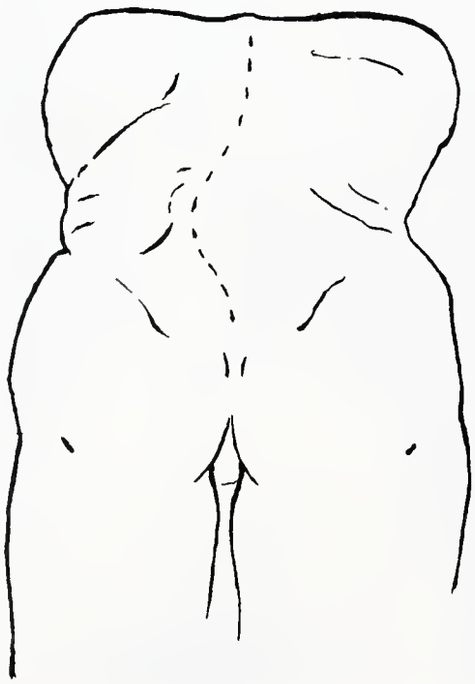
4a. Left lumbar curve. In the upright position, the right hip is higher than the left and the left flank has a flattened appearance.



Growth

Determination of remaining growth is an extremely crucial factor in the treatment of scoliosis. Age alone, especially in the early teen-age years, is not reliable. However, menarche provides an excellent reference point for determining years of remaining growth in girls. The most rapid growth period in girls is nine months before menarche, with cessation of growth generally occurring two years after the onset of menses. Therefore, a 12-year-old girl who has not reached menarche and has a 25° curve will need active treatment, for example, bracing; whereas, the same de-

4b. In the forward-bending position, the paravertebral area on the left is prominent in the lumbar region.



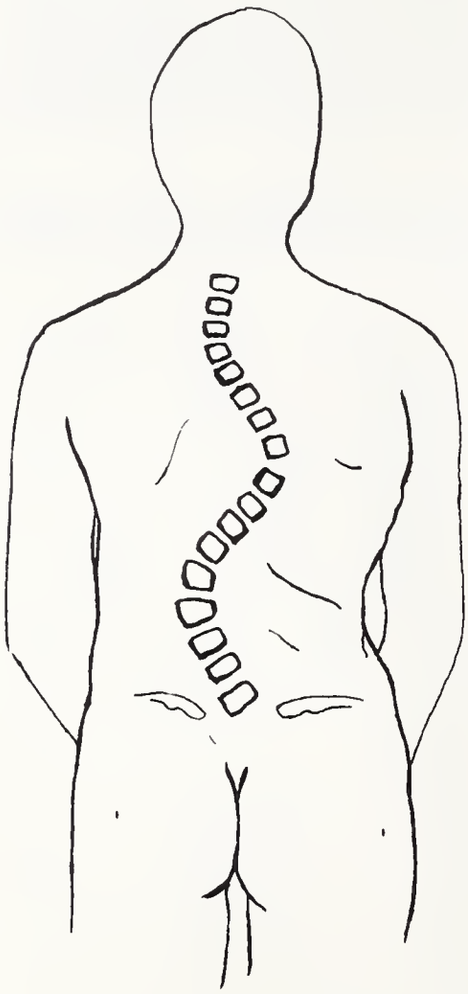
gree of curve in a girl who is three years beyond the onset of menses will not require treatment.

Bone age, as determined by the Greulich-Pyle method using hand-wrist films, provides the most accurate estimate of remaining growth, especially in boys. Girls are skeletally mature at a bone age of 16; boys, at 18.

Capping of the iliac crest starts at the anterior superior iliac spine and proceeds posteriorly along the rim of the ilium. When the ilium is full capped, the curve is unlikely to progress.

Whatever method is used, if one detects a slight curvature or paravertebral asymmetry, or both, in a growing child, the patient should be reevaluated in three months. The importance of stressing the need for reevaluation to the patient and parents cannot be overemphasized. As a general rule, growing patients with curves greater than 20° will require some form of active treatment.

5a. Double major curve. The two curves usually balance the spine, giving the back a deceptively normal appearance.

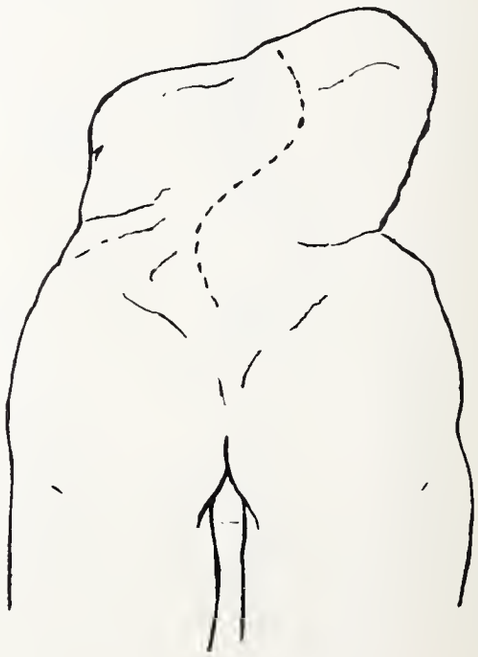


Treatment

Only two means of actively treating scoliosis currently exist: bracing (with a Milwaukee brace) and surgery. Purported treatments such as diets, shoe lifts, exercises, rest periods, stretching, manipulation, and vitamins have been tried but have not proven effective.

The primary goal of bracing is to prevent progression of the scoliotic curve; there is no correction. The normal course for this form of treatment would be to fit a brace for a child with a 25° to 30° curve in whom there is growth remaining (Fig 7), have the child wear the brace until growth is com-

5b. Both sides of the paravertebral area are elevated in the forward-bending position, producing two rib humps in different regions of the spine.



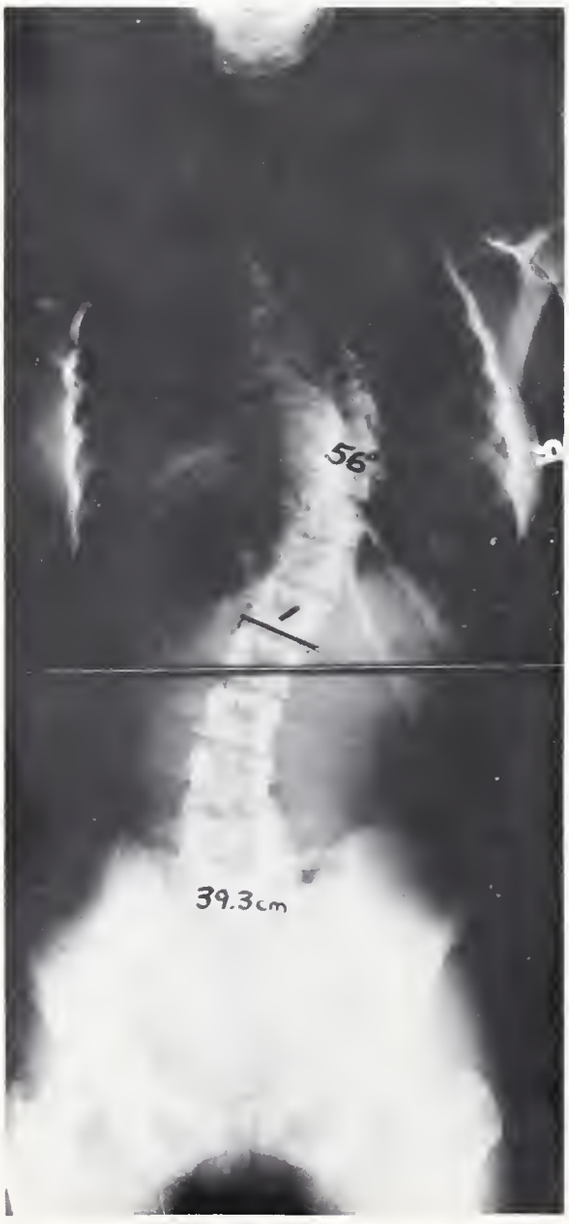
plete, and remove the brace when the child reaches skeletal maturity. Upon removal of the brace, the curve will be approximately the same degree as when treatment was initiated. Therefore, the brace is not indicated for adults nor for individuals with severe curves.

Bracing cannot prevent progression of the curve in every instance, but it is usually successful in 90% of the cases when the initial curve is less than 30°. In cases where the initial curve is between 30° and 40°, progression is halted in 60%. Generally, the brace does not work with curves of greater than 40°. In those cases where there is progression of the curve despite adequate brace treatment, surgery may become necessary.

Surgery is indicated when one has a severe curve or a curve that renders the spine markedly unbalanced. Surgery has two basic objectives: correction (not a cure) and stabilization of the spine. Correction is usually achieved with Harrington instruments. Permanent stabilization is attained by development of the bone fusion which is performed at the time the instruments are inserted. The indication for surgery is based upon several factors: (1) curve magnitude, (2) balance, (3) flexibility, (4) wedging of the apical vertebra, and (5) symptoms. The most important of these factors is curve magnitude. Generally, surgery is indicated in thoracic and double major curves of greater than 50° and in thoracolumbar and lumbar curves of greater than 40°. Balance and flexibility are also crucial. An unbalanced, flexible spine can withstand less deformity and necessitates surgery at a lesser curve magnitude than does a balanced and rigid spine.

Spinal instrumentation and fusion is major surgery and is never undertaken unless essential to the future health of the patient. The recovery period is one year, with the first six months requiring more restrictions than the remaining six months. Patients generally are hospitalized for two weeks. They are placed in a body cast one week following surgery, and ambulation begins during the remaining week of their hospital stay. The body cast remains in

6. Optimum viewing for radiological diagnosis is provided by a standing 36-inch anteroposterior film taken from a distance of 72 inches. Curve magnitude, as determined by the Cobb technique of measurement, is recorded directly on the film.



place for nine months to allow complete solidification of the fusion.

In 364 cases in teen-agers (Fig 8), the mean correction immediately following surgery was 64%. Mean operating time was 117 minutes with a mean blood loss of 790 cc and replacement of 580 cc. Follow-up at two years showed a 0.02% incidence of pseudarthrosis.[1] In a review of 132 surgically-treated scoliotic adults, the mean correction was 48%. Mean operating time was 130 minutes with a mean blood loss of 874 cc and replacement of 864 cc. There was a 13% incidence of pseudarthrosis. However, since the addition of autogenous bone to the fusion, the incidence of pseudarthrosis has been about 1%.[2]

Newer Treatment Modalities

Electro-spinal instrumentation: In the past two to three years, electrical stimulation of the muscles on the convex side of the scoliotic curve has been tried. This requires insertion of electrodes and a receiver under the skin. The muscles are stimulated at night only. This investigation has not been completed and thus far has shown only limited promise.

Low-profile brace: During the past ten years, investigation has been carried out in regard to braces that do not come above the shoulder. To date, lumbar and some thoracolumbar curves have been well-managed with this type of underarm brace. However, this brace is not applicable for the higher curves in the thoracic region.

Scoliosis in the Adult

For many years, progression of a scoliotic curve was mistakenly thought to cease when skeletal maturity was reached. On the contrary, scoliosis will progress in the

7. The Milwaukee brace is generally worn by growing children with curves ranging from 20° to 50° to help prevent progression of their curve. a. Anterior view.

7b. Lateral view.

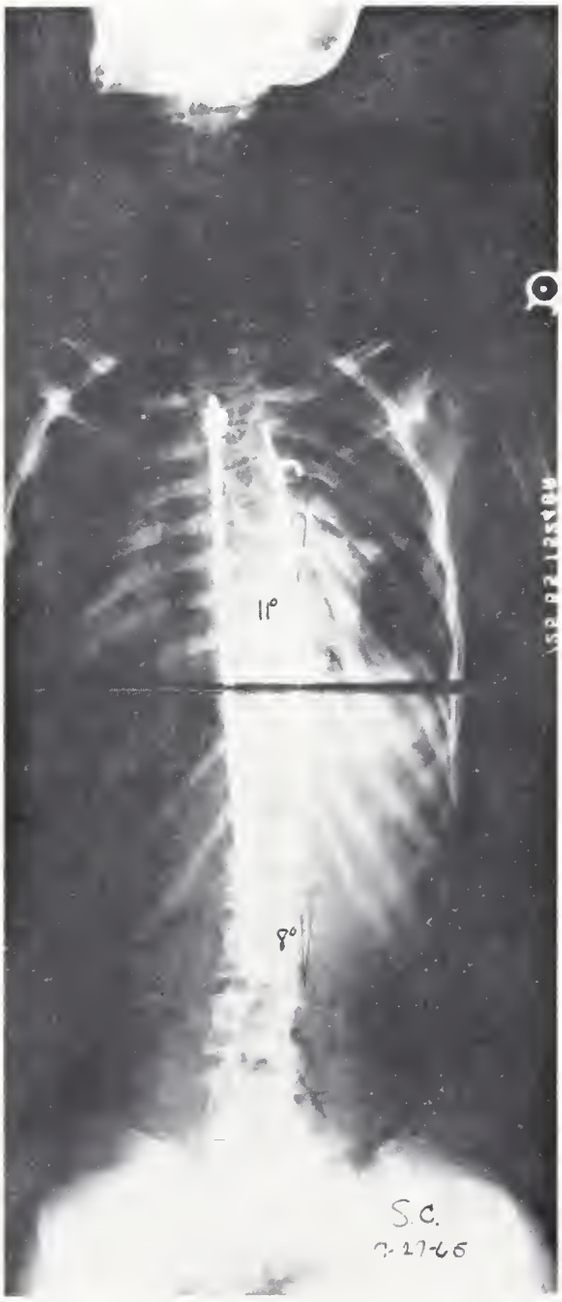
7c. Posterior view (note the left lumbar pad).

8. A representative case of idiopathic scoliosis in a 14-year-old girl. a. Preoperative photograph showing a right thoracic curve.

8b. Preoperative x-ray film shows the curve to be 70°.

8c. Postoperative photograph illustrates the restoration of trunk length and alignment.

8d. Postoperative x-ray film shows the primary curve to measure 11°. In addition to partial correction, spinal instrumentation and fusion stabilizes the spine, preventing further progression of curve magnitude.



adult if the curve has reached a severe magnitude by the time skeletal maturity has been reached. The progression is slow but steady. Circumstantial evidence has shown that pregnancy, with associated relaxation of ligaments, will cause a more rapid progression than does the normal aging process in some patients.

Three factors increase the likelihood of curve progression in the adult: (1) curve magnitude greater than 50°, (2) an unbalanced trunk, and (3) a flexible curve. Therefore, it is preferable for an individual to have two rigid 60° curves (right thoracic and left lumbar) that have rendered the spine well balanced, than to have a 40° lumbar curve that is extremely flexible and has shifted the trunk off center.

The symptoms resulting from scoliosis in the adult are strictly mechanical; that is, the symptoms occur only when the individual uses her back. As the adult with scoliosis ages, increasingly more symptoms occur with decreasingly less use of the back. Generally, the individual feels fine upon arising in the morning, aside from a minimal starting stiffness or ache. However, as the day progresses, her back begins to feel tired, then aches as she continues her daily routine, until more and more pain develops. If she lies down at any point in the day, the symptoms generally disappear within 20 to 30 minutes. Scoliotic adults rarely take any medication, managing their pain and discomfort by limiting their activities. The symptoms are localized to the thoracolumbar area regardless of the curve type. Symptoms at the lumbosacral area (low back pain) are not caused by scoliosis.

Surgery is the only treatment for scoliosis in adults that has been shown to be of any value over the long term. The goal of surgery is to rebalance and stabilize the patient's spine. Any correction attained is considered icing on the cake. In the previously mentioned review of 132 surgically treated adults, all but one patient felt that the surgery was well worth their effort in regard to rebalancing and stabilizing the spine, lessening the symptoms, and preventing the curve from progressing—even though a normal back was not achieved.

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Back injuries sustained in industrial accidents

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The results of lumbar laminectomy or fusion in industrial accident cases are considerably less favorable than results in private patients. Postoperatively, increasing numbers of patients involved in industrial accidents are applying for total and permanent disability.

This produces a drain on our manpower and increases costs of goods and services to consumers and taxpayers. In an attempt to reverse this trend, opinions, experience, and suggestions were solicited from patients, physicians, employers, insurance carriers, attorneys, and labor unions.

Replies have been tabulated, conclusions drawn, and recommendations made based on information obtained from all interested parties.

This article analyzes certain factors associated with back operations in injured workmen. This project was undertaken because of the increasing number of such patients examined because of their pending applications for total and permanent disability.

At the present time, one in nine employees will require medical attention related to his occupation in a calendar year. About 95% of the claims received by the Texas Industrial Accident Board stem from injury and 5% from illness. Claims for disability resulting from illness are filed most often by workers in nonmetallic mineral products, meat products, and industrial chemicals. Injuries occur more frequently in contract construction, manufacturing, steel products, fabricated structural products, transportation, and equipment industries. Injuries occur more frequently in companies which have from 50 to 100 employees. Of all reported injuries, approximately 16% are back injuries.

The first recorded instance of traumatic rupture of the intervertebral disc was reported by Coker in 1896. The introduction of contrast material for localization of intraspinal abnormalities by Sicard and Forestier in 1922 facilitated localization. A better understanding of the pathophysiology of sciatica resulted from the work of Mixter and Barr in 1934. Pertinent knowledge up to that time was summarized in *The Intervertebral Disc,* by Bradford and Spurling[1] in 1945. The words of these authors appear to be more true today than when they were written in 1945. They said, "In some cases, however, prolonged conservative treatment is impractical because of economic problems." Greenwood and associates[2] in 1952, cautioned that "... the effect of compensation is becoming increasingly important." Presently, many factors appear to contribute to an increasing number of back operations, both in industrial and non-industrial accidents.

Lumbar laminectomies, whether done by neurosurgeons or orthopedic surgeons, usually produce approximately 85% good or satisfactory results. With research, refined surgical techniques, and increasing experience, one would expect a progressive improvement in these results. This does not appear to be the case in lumbar laminectomies performed on injured workmen.

The back operation is no longer a mystery to the layman. The operation has been publicized both in the lay press and on television. People, in general, are more aware of problems which were once considered uncommon. The operation has been refined and perfected and is being done with increasing frequency. However,

the public in general and the patient in particular cannot be assumed to have complete knowledge as to the inherent risks and dangers and the degree of success of the operation.

When the injured workman applies for total and permanent disability after surgery, he is lost to industry. Such a person is usually in mid-life, at the peak of his productivity, is a competent wage earner, pays taxes, has a house mortgage, educates his children, and contributes to the social, cultural, and economic growth of his community. With enforced retirement and reduced income, the workman is not only lost to industry but frequently becomes inactive, gains weight, may drink excessively, and frequently becomes depressed.

On the surface, this would appear to involve only the physician and his patient. Although we are primarily concerned with the injured man, the ramifications of this trend tend to involve many sectors of our society. Other interested parties include insurance carriers, employers, attorneys, labor unions, the Industrial Accident Board, the US Department of Labor,* and consumers and taxpayers. The workmen's compensation insurance carrier in such a case must make a considerable settlement, insurance premiums for the employer increase, and the costs of goods and services to the consumer and taxpayer increase.

Description of Study

This article is not concerned with the severely injured worker such as a paraplegic who unquestionably requires a long period of rehabilitation. Rather, we are concerned with the selected back operation in the patient who has had a back injury, has seen many physicians, has had various types of treatment, does not improve, is eventually operated upon, and does not return to gainful employment.

Efforts have been made to determine whether or not the personal observations of an increasing number of total and permanent awards is the experience of other physicians, and whether or not this is local or general. The ramifications of such a trend would make it incumbent upon the medical profession to recognize this problem, analyze all contributing factors, and make certain constructive recommendations. By surveys, questionnaires, conferences, and personal contacts, efforts have been made to obtain opinions reflecting the experience, outlook, and suggestions from all interested parties. Questionnaires were sent to patients, physicians, insurance carriers, employers, attorneys, labor unions, the Industrial Accident Board, and the US Department of Labor. This combined input of information has been analyzed, conclusions drawn, and recommendations made in an effort to improve the status of the injured man and to reduce this drain upon our economy. Conclusions and recommendations will be based on observations, experience, and opinions of all interested parties. This article includes only information derived from the questionnaires. The author has no preconceived ideas and his evaluation will be expressed only in the conclusions and recommendations.

The 18 patients examined during the 12 months of this survey had one or more back operations, were unable to return to gainful employment, and had applied for

*Empowered to administer the Jones Act, covering injuries to longshoremen and harbor workers.

total and permanent disability benefits. These are the bad results. The topic of this article is not the percentage of such patients who end up in this situation, but rather an analysis of all factors contributing to the injured man's application for total and permanent disability. This is a relatively small group, and it is statistically unimportant as far as the degree of success or failure of the operation is concerned. My study was not a fact finding inquiry. Rather, the questionnaire was an opinion gathering instrument intended to analyze all factors contributing to the injured man's application for total and permanent disability.

The context of the questionnaires to different interested parties varied considerably. Certain questions were duplicated to different parties. In all questionnaires, the recipient was invited to add additional remarks or information which might not have been specifically requested. These replies offered criticism in some responses to all groups, directed at times to other involved parties and at times toward certain members of their own group. This has been received and recorded in the spirit in which it was offered, namely, arriving at specific recommendations. Some physicians suggested that too many doctors are becoming "disc jockeys." Many employers implied that the Industrial Accident Board was a "kangaroo court." Divergent views were expressed in some replies to the questionnaire, but all respondents hoped to contribute to the welfare of the injured workman.

Through these questionnaires efforts were made to determine whether or not industrial safety standards are adequate, whether too many operations are being done, whether the patient received adequate medical care, whether increased workmen's compensation insurance premiums are reflected in increased costs of goods and services to the consumer, whether increased workmen's compensation insurance premiums have resulted in failures of small businesses, whether there has been, as a result of this trend, a reduction in man hours work for the labor force, and what all interested parties can do to reverse this trend.

If too many back operations are being done, it is incumbent upon the medical society to police its members. We are concerned with government intervention, PSRO, third party guarantors, and other infringements upon the private practice of medicine. Because numerous interested parties are involved in the industrial back injury, this would be an excellent place for the medical profession to analyze its capabilities, its morals, and its standards. If we do not do so, it is inevitable that eventually such a review will be made by certain government agencies or consumer groups.

Services Available to Injured Worker

Under present Texas statutes, total and permanent disability is a misnomer. It is neither total nor permanent. Presently, such an award amounts to $77 per week for 401 weeks. This settlement indicates that the injured man is not physically able to return to his previous employment. He is not precluded from seeking employment elsewhere, and this tax-free income is designed to compensate for reduced income from employment in other fields. Adjudication by the Industrial Accident Board is not legally binding but may be appealed and carried to a court of law for a

jury decision. Statutes in other states vary widely, both as to the weekly allowance to the injured man and the definition of total and permanent disability. An award of total and permanent disability in many states precludes any gainful employment for the patient; the effect is similar to that of the Social Security definition for total and permanent disability awarded before age 62 because of physical disability.

In cases under federal jurisdiction, a ruling by the US Commissioner of Labor is final and may not be appealed either by the injured man or the defendant. At present, the injured workman who comes under the jurisdiction of the commissioner receives two-thirds of his base pay up to a maximum of $340 per week.

Injured workmen have other avenues available to them, whether they undergo

1. Questionnaire results. Replies from two parties.

	Patient	Employer	Physician	Insurance	Attorneys	Unions
1. Are workers doing jobs for which they are not trained?	No					yes
2. Did you have an annual physical?		30% yes				yes
3. Did you have a company physician?	65% yes	70% yes				
4. Did you have a company nurse?	50% yes	30% yes				
5. Did you have a union?	50% yes	42% yes				
6. Did you have an attorney?	70% yes					2/3 yes
7. Did you have x-ray evidence of any congenital back condition?	20% yes			contributes to + injuries		
8. Male or female?	50-50	8:1 male				
9. Do you have a mandatory retirement age?		25% yes				yes
10. Are employees white or blue collar?	white	blue				
11. Are injuries related to length of time on the job?				50% yes		50% yes
12. Average length of time of employee on job?	2-20 yr	3 mo-10 yr				
13. Would preemployment physicals reduce industrial back injuries?					50-50	yes
14. Has increased compensation premium hurt small business?		yes			50-50	
15. Has it caused business failures?		15% yes				no
16. Has it increased cost to consumer?		75% yes			50-50	
17. Do postoperative patients make good employees?		yes				yes
18. Do you do laminectomies alone?	35% had		80% yes			
19. Do you do fusions alone?	40% had		5% yes			
20. Do you do both?	25% had		15% yes			
21. Average postoperative period from laminectomy?			3 mo	4 mo		
22. Average postoperative period from fusion?			8 mo	10 mo		
23. Do you use preoperative steroids?			35% yes	no help		
24. Do you use preoperative enzyme injection?			20% yes	no help		
25. Do you use nerve stimulators?			10% yes	no help		
26. Has increased malpractice premium caused more operations?		no		50-50		

surgery or not, for training and rehabilitation. Help is offered through the US Department of Labor; Texas Rehabilitation Commission; Industrial Accident Board; community mental health and mental retardation centers (in Houston, the Texas Research Institute for Mental Sciences also has a program); the Social Security Administration of the US Department of Health, Education and Welfare; several programs including food stamps, family and social services, medical assistance, and vocational rehabilitation available to those who qualify for Aid to Families with Dependent Children, which is administered by the Texas Department of Human Resources; various vocational training courses for which workmen's compensation insurance will pay; and the Texas Employment Commission.

2. Questionnaire results. Replies from three or more parties.

	Patient	Employer	Physician	Insurance	Attorney	Union
1. Are industrial safety standards adequate?	no	65% yes	yes	50-50	no	no
2. Did you have a preemployment physical?	yes	30% yes				yes
3. Did you have physician of your choice?	yes	yes				yes
4. Did you have a myelogram?	100% yes	should have	85% yes	should have		
5. Did you have an EMG?	50% yes		should have	should have		
6. Did you have a discogram?	20% yes		no help	no help		
7. Did you have consultation before surgery?	90% yes		not necessary		not necessary	
8. Do you recommend consultation before secondary surgery?		yes	no	yes		yes
9. Age at the time of operation.	28-61	23-50 av				40 av
10. Would you set cut off upper age limit for surgery?		50-50	no	no	50-50	no
11. Has total and permanent disability award number increased?		yes	yes	yes	50-50	yes
12. Is this local or general?			general	local	50-50	
13. Are too many operations being done?		yes		yes	no	no
14. Has inflation contributed to more operations?		no		yes	no	
15. Has influx of foreign MDs contributed to more operations?		no	yes		50-50	no
16. Has influx of "shade tree" mechanics contributed to more operations?		yes		yes	no	no
17. Has increased compensation allowance contributed to more operations?		yes		yes	50-50	yes
18. Should legislature change present IAB laws?		yes		yes	yes	no

Responses to Questionnaires

Many workmen with back injuries indicate that they are trained only for manual labor and have difficulty in finding light work, whether or not they have had a back operation, when released by their physicians. Since only about 20% of patients who present symptoms compatible to a protruded intervertebral disc eventually require surgery, many of these patients might be better off physically and financially if they considered job training and rehabilitation in other areas if the operation is not mandatory. Greater efforts should be made to utilize these services before an operation is done because, postoperatively, many of these patients are not physically or psychologically able to participate in these programs.

Replies to questionnaires from interested parties are exemplified in Fig 1, where identical questions were answered by two parties. Fig 2 shows answers to the same questions from three or more interested parties.

Replies from patients, in addition to information in the chart, are as follows:

1. Most patients were trained only for manual labor.
2. Following operations, they were released to light duty, but no such light duty was available to them.
3. Many patients felt that poor results were in part due to the fact that the operation was delayed too long.
4. Some patients felt that they had too little conservative treatment.
5. Postoperatively, the patients felt that they were pressured and pushed beyond their endurance.
6. Employees were frequently afraid of losing their jobs.
7. Postoperatively, employees felt they had excessive pressures, both physical and psychological, from the supervisors.
8. Many employees felt that the time lost from work contributed to financial hardships.
9. These financial hardships frequently led to emotional problems.
10. Doctors pass the buck too much.
11. A synthetic replacement for removed disc should be designed.

Replies from employers, in addition to information in the chart, are as follows:

1. Some employers report few injuries but more lost days from work.
2. Injuries come in waves.
3. Most job injuries occur in hot months.
4. The quality of the individual workman has deteriorated.
5. There appear to be more injuries in short-term employees.
6. Employers generally want the injured man back to work at light duty as soon as possible.
7. The injured workman usually returns to his previous job and is a good employee.
8. Employers are generally critical of workmen's compensation laws.
9. The Industrial Accident Board and the Legislature are politically motivated.
10. Employers felt that the state laws were devised with more advantage to the attorneys than to the injured man.
11. The Industrial Accident Board is too liberal and claimant oriented.
12. Back operations are more widespread in Texas than other states because of the structure of the Industrial Accident Board.
13. Insurance carriers are not helpful in establishing proper industrial safety standards.
14. Laws should be changed to reduce

payments for minor claims and reduce fees to attorneys.

15. An increasing number of employers are being placed in the assigned risk pool by workmen's compensation insurance carriers.

16. Changes must come from the Legislature.

17. Workmen's compensation insurance claims work a hardship on all employers but particularly the small ones.

18. Industries hit most hard by increasing premiums are small shipbuilders.

19. Compensation rates are increasing because of fraudulent claims.

20. Increased workmen's compensation allowance contributes to an increase in man hours lost from work.

21. Increased workmen's compensation premiums are the result of fraudulent and professional claimants.

22. These increased premiums have resulted in increased costs to consumers.

23. The medical profession should establish a profile of indications for surgery.

24. Increased lost man hours is general throughout Texas because of the structure of the Industrial Accident Board.

Replies from physicians, in addition to information in the chart, are as follows:

1. The results of back operations in private patients are generally better than results in compensation cases.

2. The injured workman frequently is not well motivated.

3. Some physicians, particularly those in the Beaumont area, have stopped doing operations in industrial cases because the results are so poor.

4. Our society is generally lawsuit oriented.

5. There has been a change in our general moral standards.

6. In industrial cases, the recovery from operations on the back usually is prolonged for financial considerations.

7. Failure in cases of industrial injury to the back is in part due to a shorter period of conservative treatment.

8. Because they know that they will be paid, doctors sometimes shade the indication for an operation in an industrial case.

9. Physicians have too much paperwork to do.

10. In industrial back injuries, reports must be sent to the Industrial Accident Board, the compensation carrier, the patient's attorney, frequently to Social Security and welfare workers, social workers, and food stamp distributors.

11. Total and permanent disability may be the result of pressure from the patient and the fear on the part of the doctor of malpractice litigation.

12. The publicity about the back operation on television and in newspapers may contribute to an increasing number of total and permanent disability awards.

13. In the opinion of many doctors, a discogram is indicated particularly in cases where there is a good history, good physical examination, and negative myelogram.

Replies from insurance carriers, in addition to the information in the chart, are as follows:

1. The insurance industry agrees that the injured workman cannot survive on $77 per week.

2. A greater allowance could be made if fraudulent claims were eliminated.

3. The fact that the injured man has the right to the physician of his choice causes excessive medical bills.

4. Union members work out of a hall and physical examinations are not required before going on a job.

5. Federal laws and insurance premiums to shipbuilders and stevedoring companies contribute to more business losses than occur under state laws.

6. The injured man who does not have an attorney usually returns to his previous employer postoperatively.

7. The injured man represented by an attorney usually seeks employment elsewhere after his settlement.

8. Of people who have back operations, 20 to 25% require a second operation.

9. A certain percentage of patients who have back operations develop arthritis of the spine, but the percentage of arthritis following knee operations is greater.

10. Some doctors operate for financial gain.

11. There are numerous fraudulent claims due to dishonest physicians and attorneys.

12. Physicians do not take a definite stand on the degree of disability.

13. Physicians are not positive enough in their reports and are afraid to give a definite opinion.

14. Too many doctors lean one way or the other and these differences of opinion result in the best award to the patient from either a jury or the Industrial Accident Board.

15. More back operations are done in Houston than any other part of Texas.

16. State laws should be changed to allow more benefits to the patient and less to the attorney.

17. State laws should be changed so that after surgery, back injuries would rate a specific award as in the case of a hernia, the loss of an eye, or a fracture.

Replies from attorneys, in addition to information in the chart, are as follows:

1. Employers assigned to the high-risk pool are there because of the number of injuries, which are primarily due to poor business management.

2. Workmen's compensation insurance premiums in Texas are low; insurance companies are doing a good public relations job and are snowing some doctors.

3. If the federal government nationalizes workmen's compensation insurance laws, the attorney's fee will be cut, the patient will receive a greater award, and insurance carriers will have less work to do.

4. The injured workman cannot survive on $77 per week.

5. The great majority of patients who have minor back injuries are born losers, dependents, social misfits, dropouts, and wards of society.

6. These people never get well and should never be operated upon.

7. A fixed award is unfair because the results vary widely postoperatively from patient to patient.

8. The healed incision itself is a disability at a preemployment physical examination.

9. Most back operations are successful unless there are some complications.

10. The patient should not succumb to medical pressure to have the magic surgery.

11. Too many back operations are being done.

12. Attorneys, physicians, and the Industrial Accident Board conspire to force surgery on the injured man.

13. An increased number of total and permanent disability awards is due to the

change in ethics and standards of the medical profession.

14. Physicians are too anxious to operate.

15. Medical treatment is inadequate.

16. It is unfair to tell the patient you are going to "repair his back."

17. Greed and avarice bring on too many back operations.

18. Physicians are out to make a buck.

19. Doctors cater to insurance carriers because they know they will be paid.

20. Doctors usually consciously or subconsciously give a low estimate of disability.

21. The medical profession should clean its own house.

22. Hospital staffs should eliminate overzealous surgeons.

23. Hospitals should require consultation before a back operation.

24. Many times a second operation is required, and each time the patient gets worse.

Regulations and Laws

The adjudication of an injured workman's claim for disability, whether done by the Industrial Accident Board, the US Commissioner of Labor, a judge, or a jury assume certain conditions regarding the patient's medical care. It is taken for granted that the patient has had (1) adequate conservative care, (2) diagnostic studies sufficient to establish a diagnosis, (3) all needed consultations, (4) surgery at the hands of a competent physician, and (5) in essence, the best medical care available.

In a recent court decision, the defendant insurance company contended that the back operation was not indicated and should not have been done. The defendant won the case. Where does this leave the surgeon with respect to his malpractice insurance? With the present vogue for class action suits, does this imply negligence on the part of the medical school from which the physician graduated, the state that issued him a license, the specialty board that certified him, the county medical society of which he is a member, the state medical society, or the American Medical Association?

There are two federal statutes: (1) Federal Employee's Compensation Act (FECA), which covers 3 million government employees, and (2) the Longshoremen and Harbor Workers Compensation Act, which covers some 900 thousand people from dock workers to nonfederal employees in the District of Columbia. Injured workmen under the jurisdiction of the Longshoremen and Harbor Workers Compensation Act receive a weekly allowance of two-thirds of their base pay up to a maximum of $340 a week. In 1974, Congress and the administration estimated the provision of the FECA would add $8.75 million to the program's cost in the year of 1976. In fact, this cost in 1974 was $271 million, and in 1975 the cost was $475 million.

There is indication that there may be attempts to federalize and standardize the workmen's compensation laws, which now vary from state to state. This would increase the benefits to the injured workman, would by statute limit the fees to attorneys, and would assure an increase in compensation premiums to most employers.

Other Factors

The industrial injury to the back presents a situation in which the financially responsible workmen's compensation insurance

carrier has no voice in choosing the patient's physician, what consultants may be called in, how much physical therapy can be used, how long a period of hospitalization may be required, when an operation is indicated, what postoperative rehabilitation is indicated, and what period of time may be expected before the patient can return to gainful employment. Such a situation promotes padding the bill. Some physicians are reluctant to handle these injuries because they feel they are being used by fraudulent claimants who seek only to receive a large settlement. Attorneys, insurance carriers, and employers agree that approximately 20 to 25% of all back injuries require a second operation. This is sometimes thought to result from a restricted course of conservative treatment. In the experience of most attorneys and most insurance carriers, postoperative arthritis is most uncommon as a delayed complication.

Patients who previously had some seniority with a reputable company usually return to the same employer, either to the old job or to a less physical one. They do not lose seniority, retirement benefits, pension plan, or other fringe benefits. However, it is felt that the patient who does not return to his previous employer, whether he underwent surgery or not, probably has been on the job for a relatively short time, may prolong his symptoms, and may not return to gainful employment until a ruling has been made by the Industrial Accident Board. One Houston physician who does a considerable amount of industrial work reports having seen one patient who had two separate back injuries a few months apart. In each case, the patient was awarded total and permanent disability, although he had neither a myelogram nor an operation. This patient returned to the same type work after each settlement.

Slowly, but progressively, the medical profession is coming more under the direction of federal laws and agencies. If we are at fault in doing too many back operations, this would be a good place to start to clean house. Whether or not we like PSRO, medical and nonmedical audits, etcetera, the party paying the bill has a right to know what he is paying for and will eventually find out. In the present situation, the employer, the consuming public and taxpayers are directly or indirectly affected. Whether the public realizes it or not, it is involved in back injuries because the increase in compensation premium is passed on to the consumer.

Many surgeons routinely treat patients with industrial back injuries. It has been stated that neurosurgery is a relatively small specialty with perhaps 50% of all board certified neurosurgeons having been certified within the past ten years.[3] In Houston there are 34 neurosurgeons and 110 orthopedic surgeons. Many physicians who do this type operation feel that the success of the operation depends primarily upon the diagnostic acumen and intelligent honesty of the surgeon. Only about 20% of all patients in whom herniated discs are suspected eventually require an operation. A comparison of private patients with back injuries versus workers who sustain back injuries on the job[4] reveals that one year after operation, all private patients were working, but 25% of patients with job related injuries were not. The selection of the patient has more to do with the success of the operation than the technical skill of the surgeon.

The increasing number of women in the work force is probably the single most outstanding phenomenon of our century.[5]

World War II resulted in an increasing number of women in the work force. However, the number of female employees has doubled between 1950 and 1975. At present, females represent 39.6% of the total work force in the United States.

Conclusions

Replies from patients suggest the following:

1. Most workmen with industrial back injuries are qualified only for manual labor.
2. A longer postoperative recovery period may be required for the injured workman than the private patient because of the physical nature of his job.
3. Physicians are too anxious to operate.
4. The present award of $77 per week is too low.

Replies from employers suggest the following:

1. The quality of the individual workman has deteriorated.
2. There is an increasing number of fraudulent claims.
3. Compensation rates are increased because of these fraudulent claims.
4. The Industrial Accident Board should require consultation before a lumbar laminectomy on a injured workman.
5. There is need for improved safety standards.
6. More operations on the back are done in Texas and particularly in Houston than in any other part of the country because of the nature of Texas' workmen's compensation laws.
7. Workmen's compensation laws should be revised.
8. Increased compensation premiums have hurt many small employers.
9. These increased compensation premiums have resulted in an increased cost to the consumer.
10. The ratio of women in the work force in this area is 8:1.
11. In cases reviewed in this survey, the ratio of women is 1:1.
12. The general work force is made up largely of blue collar workers, but patients in this survey were largely white collar workers.
13. Employers implied that injuries occur most often in short-term employees.
14. In this survey, injuries occurred most often in long-term employees.
15. Employers indicated that after surgery, employees were trained only for manual labor, but the patients in this survey were mostly white collar workers and might have been adaptable to rehabilitation.
16. The allowance of $77 per week is too low.

Replies from physicians suggested the following:

1. Only about 20% of the patients who present with symptoms of disc injury will eventually require surgery.
2. An increased need for rehabilitation both before and after operation should be recognized.
3. Doctors should not have a double set of standards, one for private cases and one for compensation cases.
4. Physicians should establish a profile for indications for operation.
5. The results are good on private patients and poor on compensation cases.
6. Before a second operation, orthopedic consultation should be obtained concerning the need for a spinal fusion.
7. Physicians must be specific in their reports.

Replies from insurance carriers suggested the following:

1. The right of the injured man to choose his own physician probably results in more physical therapy, more doctor's office visits, increased medical expenses, and a slow return to work.
2. An increase in number of fraudulent claims is caused by the attitude of (a) the patient, (b) the attorney, and (c) the physician.
3. Shipbuilders and other industries operating under federal law have been harder hit than employers under state statutes because of increased allowance under the Longshoremen and Harbor Workers Act.
4. After surgery, employees who have more than five years service usually return to the same employer.
5. Approximately 25% of all patients who have back operations require a second operation.
6. The increasing number of women in the work force will probably require a reevaluation of the workmen's compensation insurance premiums.
7. If state Industrial Accident Boards are nationalized under federal regulation, it will probably work a difficulty on all involved parties except the injured workman.
8. Reports from physicians should be specific.
9. Postoperative arthritis of the spine is relatively infrequent.

Replies from attorneys suggested that:

1. The operation is a success in most instances without complications, but some 20 to 25% of clients required reoperation.
2. Pre-employment physical examinations would probably eliminate a percentage of job-related back injuries.
3. A more specific and concerted plan of physical therapy and rehabilitation should be used to eliminate the need for a considerable number of back operations.
4. Operations on social misfits are accepted but the patient never recovers.
5. The insurance industry would approve a specific award for lumbar laminectomies, but attorneys feel this is unjust.
6. An increasing number of employers assigned to the risk pool may be there either because of poor management or because of an increasing number of fraudulent claims.
7. Changes in the Industrial Accident Board must originate in the Texas Legislature.

Recommendations

1. Reports by physicians and adjudication by the Industrial Accident Board should be accelerated.
2. Preoperative rehabilitation should be considered for all patients, particularly in the older age group and in the born losers.
3. The indications for a laminectomy should be the same in private patients as in industrial cases.
4. A schedule of proposed therapy would recommend a minimum of six weeks for drug therapy, physical therapy, bed rest, back braces, steroids, enzyme injections, and reexaminations. If the patient does not improve sufficiently to return to his regular employment, hospitalization would be recommended at the end of six weeks. X-ray examinations, electromyography, myelography, discography, and other diagnostic procedures should be done.
5. Consultation should be obtained in all industrial cases of back injury prior to laminectomy or laminectomy and spinal fusion. This should be done after all information is available, including hospital diagnostic studies. Consultation should be limited to two competent physicians, either neurosurgeons or orthopedic surgeons, to conserve time, expense, and minimize prolonged delays because of multiple differences of opinion.

6. Physicians should screen patients carefully before surgery in an effort to recognize born losers, minimize the number of operations in the older age group, explain that the operation is no longer a mystery nor is it magic, offer rehabilitation wherever possible, and explain that not more than 25% of people who have back injuries require a laminectomy.

7. With a six-week course of conservative therapy, additional hospital diagnostic studies, and needed consultations, a decision should be made concerning surgery and, if indicated, it should not be prolonged more than 90 days from the date of injury.

8. Preoperatively, the patient should be given mimeographed booklets or literature explaining the reason for the operation, alternate modes of treatment, specifically what would be done, past experience with other patients, the calculated risks and dangers, the statistical results of the operation, and plans for postoperative care.

9. After surgery, reports from physicians must be specific as to the target date for return to work, any specific needed postoperative physical therapy, and a specific percentage of disability.

10. Final reports should be submitted not longer than three months after the operation, and should include a specific degree of permanent partial disability and, if the patient has not returned to his previous employment, recommendations for either additional medical therapy, physical therapy, rehabilitation, or job training.

11. If reoperation is considered, orthopedic consultation should be obtained concerning the need for, and wisdom of, a spinal fusion.

12. A semiannual inspection of industrial safety standards should be made by employers, insurance carriers, or safety experts commissioned by the Industrial Accident Board.

13. Preemployment physical examinations would reduce the number of back injuries and should be made mandatory primarily because of the increasing number of women in the work force.

14. Annual physical examinations should be required of all employees over age 50.

15. Wherever practical, early retirement of employees 55 years of age or older and with 30 years' service should be recommended.

16. The Industrial Accident Board should be empowered to require reports from treating physicians within two weeks from the date of injury, and with a specific timetable of proposed therapy.

17. A set award for a back injury would be unfair because of the wide variation in postoperative results.

18. Postoperative medical care should be limited to 12 months.

19. Present statutes should be revised by the Industrial Accident Board to (1) increase the weekly compensation rate, and (2) begin compensation payments from the first day of loss of work.

20. Nationalization of state Industrial Accident Boards under the Department of Labor would be unwise. This would increase benefits to the injured workman, but would probably result in more fraudulent claims, delayed return to work, increased compensation premiums, more business failures, and increased costs of goods and services to the consumer. Such a move would deny the injured workman a trial by jury. This right should not be abridged by any appointed or elected individual or groups of such individuals.

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Use of muscle flaps in treatment of osteomyelitis of the tibia

John G. Briggs, Jr, MD; Ted T. Huang, MD; S. R. Lewis, MD

Chronic osteomyelitis of the tibia is a common sequel to compound fracture of the tibia. The management frequently is difficult because of lack of soft tissue to cover the resultant wound. A muscle flap, mobilized locally and with its blood and nerve supplies kept intact, can be utilized to provide not only wound coverage but also to fill in the tissue deficit.

In individuals who have sustained a compound fracture of the tibia, the extent of injury is frequently exaggerated by a comcomitant loss of soft tissue surrounding the fracture site. Without adequate soft tissue for wound closure, chronic osteomyelitis is a common sequel. The effectiveness of treatment for such a complication is, furthermore, hindered because of insufficient soft tissue for reconstruction. Although the use of free skin graft or skin flaps mobilized locally or from a distant site has been advocated, technical difficulties and various morbidities associated with procedures may preclude this approach. In 1966 Ger described the use of muscle flaps mobilized from an adjacent area to treat an ulcer resistant to the usual modality of therapy.[1] Muscle flaps, as shown, were quite useful in covering bony prominences as well as providing an excellent recipient bed for skin grafts without immobilizing the extremities.[2] The muscle flaps, when mobilized in this manner, could be further used to fill in tissue deficits, anatomical defects, or both. During the past three years, this method of treatment has been used at our institution to treat seven patients with chronic osteomyelitis of the tibia in whom the conventional methods failed.

Clinical Materials

Trauma was the cause of osteomyelitis in all seven patients. Vehicular accidents were responsible in six cases, and in one case, a gunshot injury to the lower leg resulted in a chronically draining wound of the mid tibia. Radiographic examination revealed changes in radiodensity and thickening of the periosteum around the area of drainage. While all of the patients were male, their age distribution ranged from 16 to 61 years. The length of time since injury ranged from 2 to 33 years, with an average of 10.8 years.

Since the original injuries were all classified as "compound fractures of the tibia," all patients required open reduction, but the methods of wound coverage varied. Although immediate wound closure was attempted in five cases, two individuals needed skin flaps from the adjacent area to cover the wounds. In all instances, necrosis of the skin became apparent within a few days. This was followed by purulent drainage and extrusion of bony spicules. In spite of repeated attempts at debridement and skin grafting or skin flaps, none of the seven patients was free of infection at the time of examination. The following case reports illustrate the magnitude of problems encountered and the method of management for this group of patients.

Case Reports

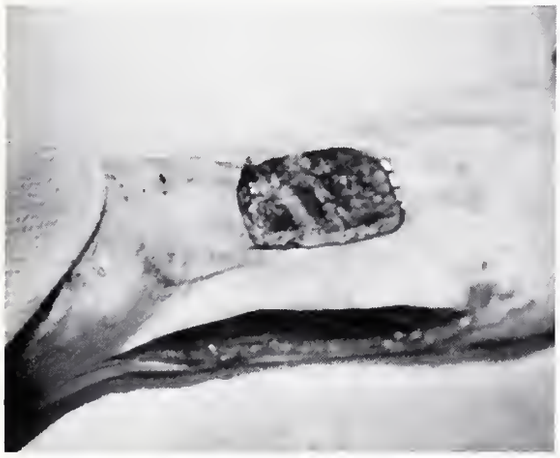
Case 1: This 55-year-old commercial fisherman sustained a compound fracture of the right tibia in 1942 in an automobile accident. The record indicated that he had undergone debridement, open reduction, and internal fixation of the fractured

tibia. The patient noticed purulent drainage from the area of fracture a few weeks later. In spite of repeated attempts during the next 35 years to close the wound with skin grafts, it remained open and draining. In February 1975 this patient was seen in the Plastic Surgical Service at The University of Texas Medical Branch Hospitals.

At that time he had a 4 by 5 cm ulcer over the anteromedial aspect of the right tibia, located at the junction of the middle and lower thirds (Fig 1). The tibia was exposed from a recent attempt at wound debridement, but there was a minimal granulation tissue ingrowth around the ulcer. The quality of the peripheral pulses was excellent. Radiographic examinations showed decreased bone density in the area of the ulcer and thickening of the periosteum. These findings were consistent with those of chronic tibial osteomyelitis. Since previous attempts to place a partial-thickness skin graft over the wound had failed, and since the use of a distant skin flap was not feasible because of the patient's age, we decided to treat both the infection and leg wounds with a muscle flap.

In order to ascertain the adequacy of vascular supply to the area, no tourniquet was used during the procedure. The entire wound was debrided and all sequestra were removed (Fig 2). The soleus muscle was exposed and isolated through an incision extending from the area 5 to 8 cm below the medial tubercle of the tibia to the area just posterior to the medial malleolus. By elevating the medial edge of the gastrocnemius muscle, the muscular belly of the soleus was identified. The entire length of the muscle was dissected free of the adjacent structures and was transsected at its distal tendinous insertion

1. A draining wound due to chronic osteomyelitis had resulted from an old compound fracture of the right tibia.



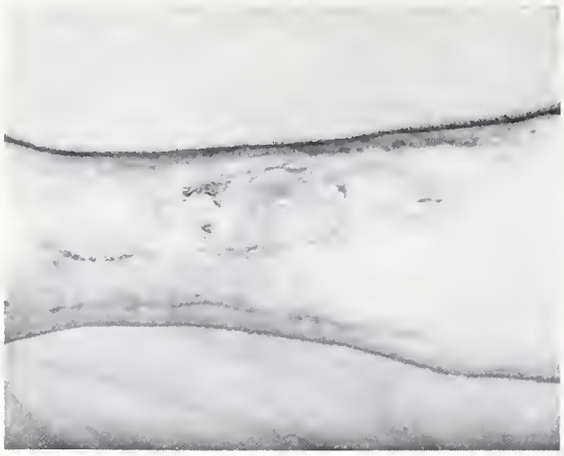
2. The entire wound was debrided and sequestra were removed before the soleus muscle flap was rotated in to fill in the tissue deficit.

while leaving the Achilles tendon intact. This strip of muscle was next rotated anteriorly through a subdermal tissue tunnel, thus covering the wound. A partial-thickness skin graft, approximately 1/16 inch thick, was used to cover the exposed muscle mass. The skin graft was immobilized with a wet cotton stent.

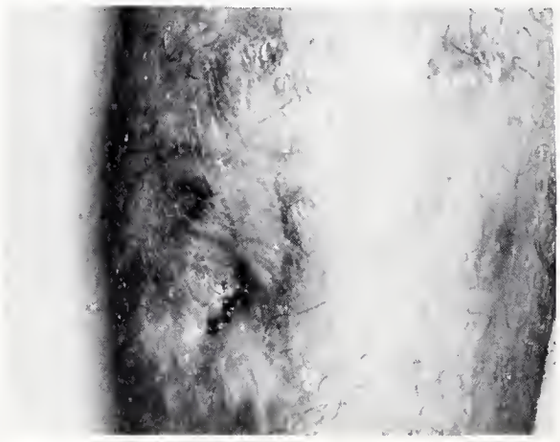
The recovery was uneventful. The skin graft "take" was satisfactory. The patient was dismissed from the hospital 16 days after the operation. He recounted neither drainage nor functional impairment from the transfer of the soleus muscle at his last clinic visit 12 months after surgery (Fig 3).

Case 2: A 23-year-old ex-motorcyclist developed a chronic draining wound four months after an open reduction and internal fixation with immediate bone graft for a compound fracture of the left tibia. Two attempts to cover the wound with local skin flaps were unsuccessful. The patient was seen by the Plastic Surgery Service two years following the accident. He had a draining wound, 1 cm in diameter, in the midportion of the lower leg (Fig 4). The radiographic findings were compatible with those of chronic osteomyelitis of the tibia (Fig 5). The conventional method of wound coverage, requiring long-term immobilization of the extremities, was thought to be undesirable psychologically for this patient. Therefore, the use of muscle flap was recommended. An extensive decortication, removal of residual sequestra and scars around the site of infection, was

3. Healing of the wound was satisfactory without apparent functional impairment of the extremity.



4. A persistent draining sinus developed following a compound fracture of the tibia.



5. The radiographic findings of the tibia were diagnostic of chronic osteomyelitis.

considered necessary to assure a complete debridement. The soleus muscle was isolated through a mid-lateral incision and was brought to fill the tissue and bony defects (Fig 6). A partial-thickness skin graft of 0.016 inch was applied for coverage. The patient was dismissed from the hospital 14 days later with satisfactory healing of the wound. No functional disturbance was noticed in the leg during a recent examination (Fig 7).

Operative Procedures

Complete removal of devitalized tissues is essential to control any infectious process, including chronic osteomyelitis. This must include mechanical removal of sequestra and granulation tissues as well as fibrous tissues surrounding the ulcer. To fill in the soft tissue and bony defects, the gastrocnemius, soleus, or flexor digitorum longus muscles are commonly used. All three muscles can be exposed and mobilized through an anteromedial incision extending from the area approximately 5 cm below the medial tubercle of the tibia to an area just posterior to the medial malleolus. The muscle belly of the gastrocnemius lies immediately underneath the skin, and the soleus muscle is located anterior to this muscle. The flexor digitorum longus, a short bellied muscle, is situated just anterior to the soleus. Since all three receive their blood supply and innervation proximally, the distal two-thirds of any one muscle can be mobilized readily (Figs 8,9). The location of the wound, however, determines which muscle to use.

A. Proximal Tibia: Anatomical defects located in the proximal one-third of the tibia are best covered by rotating the medial head of the gastrocnemius.[3] This is easily detached from the lateral head by incising the midline tendinous fusion down to the tendinous insertion of the muscle. When this muscle is not available, the soleus may be used in a similar way.

B. Middle Tibia: The soleus, lying deep to the gastrocnemius, is suitable covering for defects located in the mid-tibial region.[3] The Achilles tendon, however, is identified and preserved. The soleus muscle is isolated and transsected at the tendinous portion and then transposed anterolaterally to cover the defect.

C. Distal Tibia: Defects in the lower one-third of the tibia cannot be made up effectively by using either the gastrocnemius or the soleus muscle. Instead, the muscle belly of the flexor digitorum longus muscle should be used.[3] The tendinous portion of this muscle is transsected just distal to the medial malleolar prominence. Although the main blood supply is proximal, the muscle receives an additional

6. The soleus muscle was isolated and detached from the tendinous insertion. This was next rotated anterolaterally to fill in the tibial defect.

blood supply chiefly to the distal portion via the branch of the posterior tibial artery. Therefore, care must be taken to avoid unnecessary injury to these arteries during dissection.

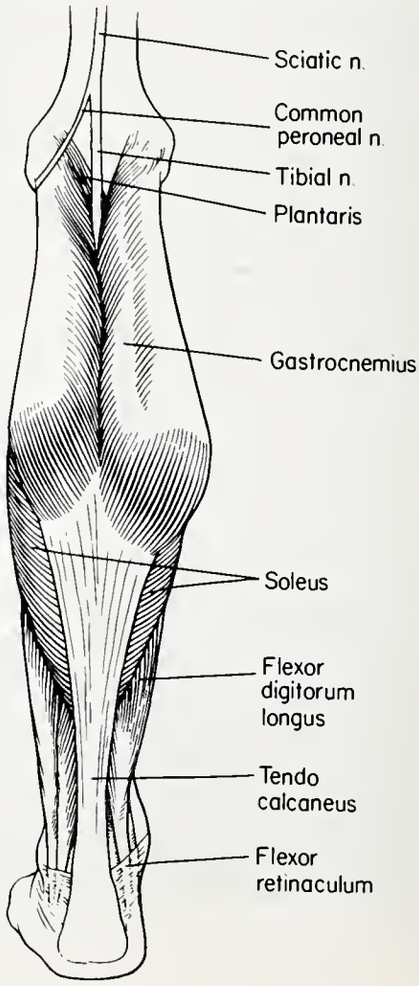
Once the transposition of the muscle belly is completed, the raw surface of the muscle may be covered by means of a split-thickness skin graft of 0.012 to 0.016 inch in thickness. The graft usually is immobilized with a wet cotton stent. If the vascular supply to the transferred muscle appears to be compromised, grafting may be delayed for several days.

7. Healing of the wound was satisfactory. No recurrent draining was noted 12 months after the surgery.

Discussion

Chronic osteomyelitis is not an uncommon sequel to an open fracture of the tibia, especially if it accompanies an extensive soft tissue loss. Surgeons frequently refrain from "adequate" debridement not only for the fear of disrupting bony continuity but also because of possible difficulties in wound closure. Additionally, the blood supply to the area can be so compromised that it favors bony infection, especially with the presence of devitalized tissues. Inflammatory reactions may further curtail blood supply to the remaining bony structures.[4,5] The ideal approach in managing this type of problem must, in this regard, include total removal of devitalized tissues while maintaining the structural integrity of the tibia. Healing of the wound, accordingly, should be accommodated by bringing in tissues with their own blood supplies to the area of infections. The overall

8. A schematic drawing of muscles in the back of the left lower leg.

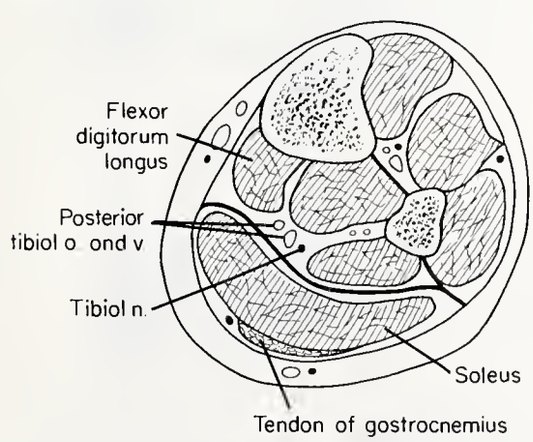


health of patients with chronic infections, however, may be so impaired as to preclude either spontaneous healing or the use of conventional methods of treatment requiring long-term immobilization of the extremities. Free composite tissue transfer by means of microvascular anastomosis has been proposed in recent years to circumvent such difficulties. However, this method can be accompanied by a plague of problems involving technical uncertainty and lengthy time required for the transfer.[6] Muscle flaps, in contrast, will provide the needed tissue mass with its own blood supply for wound coverage. Technically, the approach is quite simple and generally requires no longer than two to three hours of operating time. Not only does this method provide the necessary mass and blood supply to an area of tissue deficit and chronic infection, but also the functional disturbance in the extremity is usually nil because of compensatory mechanisms afforded by other muscles within the same anatomical compartment.

Summary

The management of patients with chronic osteomyelitis of the tibia is frequently hindered because of inadequate soft tissue for coverage following extensive debridement. The conventional methods of treatment, utilizing a free skin graft, local flap, or a distant skin flap, may not be feasible. Transposition of muscle flaps using the gastrocnemius, soleus, flexor digitorum longus, or a combination of these muscle bellies was found to be effective in making up the tissue deficit while providing an excellent recipient bed for skin grafting. The experience in treating seven patients with chronic osteomyelitis of the tibia is reported.

9. A cross section of the lower leg showing various muscle compartments and their anatomical relationships.



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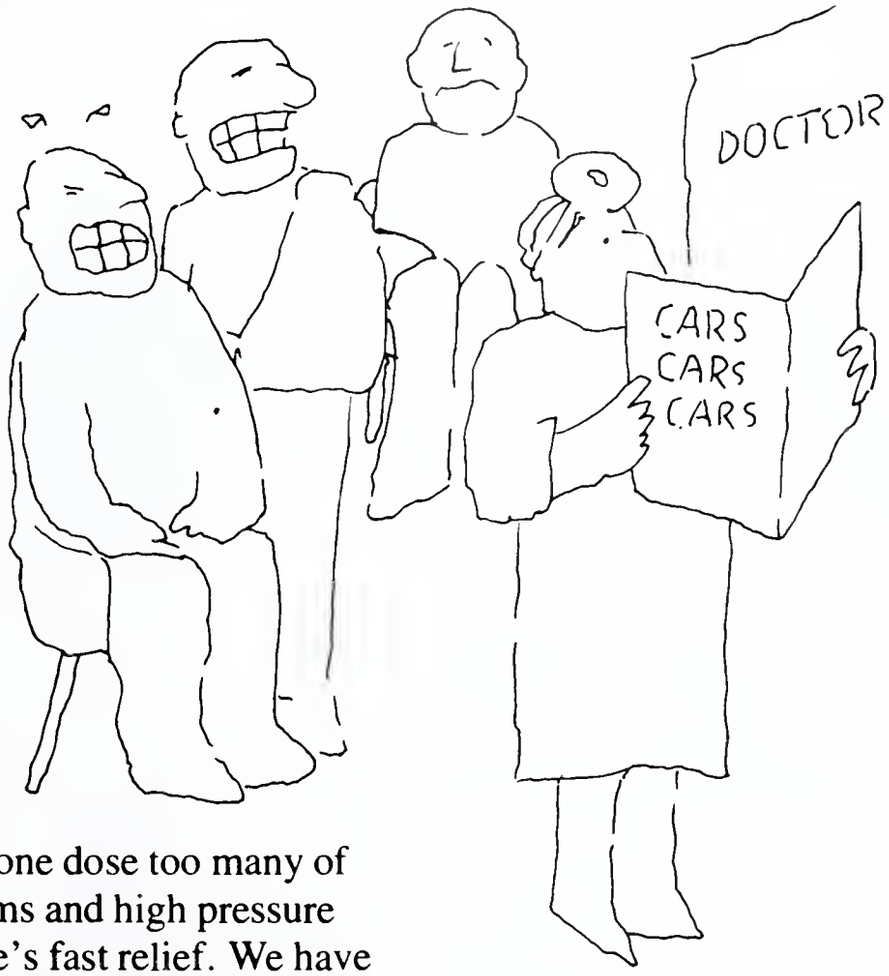

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Diagnostic errors in clinical practice

Mark W. Sheehan, MD

Things are seldom what they seem,
Skim milk masquerades as cream.
—W. S. Gilbert, *HMS Pinafore*

The practice of medicine has undergone many revolutionary changes during the past 50 years. New advances in basic science and clinical knowledge, diagnostic technology and specific therapeutic agents have armed the physician with an enormous arsenal to care for the sick patient. The cornerstone of internal medicine, and clinical practice in general, is the correctness of diagnosis. It is upon a correct diagnosis that appropriate and specific therapy can be instituted to restore health to the individual patient.

Despite our scientific advances, diagnostic errors continue to be common. The cause of diagnostic error usually is not lack of knowledge, but failure to do the simple things well. Gruver and Fries[8] found that preventable mistakes in diagnosis resulted primarily from failure to (1) adequately obtain a reliable history and physical examination and account for abnormal symptoms, signs or laboratory reports that did not fit in with the clinical impression; (2) obtain routine screening tests or perform other indicated procedures; (3) realize that roentgenographic studies may not disclose pathologic changes; (4) recognize new illnesses developing in the presence of a previously diagnosed chronic disease; and, (5) review periodically the records of patients with prolonged illnesses and repeat the physical examination, or both.

Some common diseases are relatively inaccessible to diagnosis and continue to elude even the most astute of clinicians.[21-25] The following cases illustrate specific examples of diagnostic errors. The pertinent medical literature dealing with this problem will be discussed for the purpose of clarifying the mistakes in clinical practice.

Case Reports

Case 1: A 53-year-old black man was hospitalized because of weakness, fever, and nervousness of four weeks' duration. He had noticed a gradual onset of a nonproductive cough, low-grade fever, tightness of the legs, and a 4.5 kg (10 lb) weight loss, and was unable to continue work because of general weakness. Previously, he had been treated for hyperthyroidism with iodine 131 and thyroid hormone replacement.

Physical examination revealed temperature of 38.3C (101 F), and bilateral basilar rales. No neurologic abnormalities were described.

Laboratory data included complete blood count, normal; urinalysis showed proteinuria (1+), moderate blood, and a normal sediment. Blood chemistries showed SGOT, 580/μ/ml; lactic dehydrogenase, 610 μ/ml; and T_3 T_4 values, normal. A roentgenogram of the chest showed bilateral interstitial infiltrates, and the initial assessment was of a nonbacterial pneumonia. Bronchoscopy, transbronchial biopsy, liver biopsy, and open lung biopsy examinations were performed. Pulmonary fibrosis was documented. Two weeks after admission, a repeat physical examination revealed proximal weakness, and the possibility of polymyositis was suspected and confirmed.

Comments—Diagnostic Errors

1. There was a failure to explain or explore the patient's primary symptom, which was weakness. The omission of muscle strength assessment prevented an earlier diagnosis and could have prevented several of the invasive diagnostic tests. Note that if results of the initial history, physical examination,

and basic laboratory studies do not indicate the diagnosis then repetition of these may be the "test" that the patient needs.

2. The assessment of the laboratory studies failed to explain the persistent presence of blood in the urine, shown by dipstick, despite a normal sediment. This should have alerted the physicians to the possibility of free myoglobin or hemoglobin. The elevations of SGOT and LDH are not specific and should have suggested possibilities not included in the primary physician's differential diagnoses.

Case 2: An 80-year-old white man with an eight-year history of metastatic cancer of the prostate was treated initially with orchiectomy and subsequent chemotherapy with chlorotrianisene (TACE). Six months before admission he sustained a fracture of the right femoral head, which was treated with a prosthetic hip replacement. He was found to be anemic, with hemoglobin 10.4 gm/100 ml, hematocrit 32%, and mean corpuscular volume 103 cu microns, with slight macrocytosis. Four units of packed red blood cells were transfused, and the patient had an uneventful postoperative course.

His anemia persisted and he received additional transfusions as an outpatient.

He was admitted six months later for persistent anemia, anorexia, nausea, and weight loss with increasing difficulty walking. Physical examination revealed a "sore" tongue, and mild congestive heart failure. A bone scan revealed multiple metastatic lesions. A complete blood count revealed macrocytic anemia, and clinically pernicious anemia was suspected and documented. He was treated with vitamin B_{12}, and the anemia was completely corrected. He was able to walk and his anorexia resolved.

Comments—Diagnostic Errors

1. The preconceived diagnosis of "metastatic prostate cancer" prevented consideration of the correct diagnosis, as demonstrated by the failure to explain his anemia.

2. Not all symptoms are secondary to the patient's primary illness, and physicians should keep an open mind and recognize that new illnesses may develop in the presence of a previously diagnosed chronic disease.

3. Some cases of "CA" are "PA."

4. The easiest way to cure cancer is to change the diagnosis.

Case 3: A 71-year-old black woman was admitted for chest pain, shortness of breath, and a bleeding, fungating mass in the right breast. The patient had a myocardial infarct in 1954, adult onset diabetes, and a four-year history of a gradually increasing mass in the right breast. Six weeks before admission, increasing frequency and severity of angina pectoris developed, and the patient was admitted for evaluation. She had been treated for syphilis in 1954 and 1971.

She was obese and in mild respiratory distress. An 8 x 10 x 6 cm fungating mass in the right breast was oozing blood. *Peau d'orange* was present, as was bilateral axillary adenopathy. Bilateral rales, an S_3 gallop, and edema were present.

An old anteroseptal myocardial infarction with significant ST segment depression laterally was noted; a roentgenogram of the chest revealed cardiomegaly, pulmonary congestion, and ectasia of aorta. Complete blood count showed hematocrit 16%, hemoglobin 4.1 gm/100 ml, and WBC 10.1/cu mm. Peripheral smear revealed nucleated red blood cells and tear drops. Urinalysis showed proteinuria (1+), glucose, 198, and calcium, 7.8 mg.

Hospital course: 1. The patient was admitted to the coronary care unit for severe chest pain, and serial electrocardiograms and cardiac enzyme studies confirmed a subendocardial infarct. Blood transfusions were administered.

2. The patient was transferred to a ward, and on the eighth hospital day cough, fever, and sputum production developed, and a chest x-ray suggested infiltrates in the lower lobe of the lungs. Treatment with penicillin was started and later changed to nafcillin when sputum cultures grew *Staphylococcus aureus*.

3. She continued to be febrile, and had a leukemoid reaction of 44,000/cu mm. Four days later, a roentgenogram of the chest revealed aortic and cardiac prominence.

4. On the 20th day the patient's temperature became normal, but she was transferred to the coronary care unit again because of chest pain. No new infarct was documented, and treatment with propranolol (Inderal) was started. A prominent aortic knob was again noted by her physicians.

5. She was transferred to the ward again, and bone/liver/spleen scans were normal. A breast biopsy revealed infiltrating ductal carcinoma, and radiotherapy was instituted.

6. On the 33rd day she had the sudden onset of hemoptysis followed by cardiac arrest, and she was resuscitated. An electrocardiogram revealed a new right bundle branch block. Pneumothorax developed on the left side, secondary to a subclavian catheter insertion, and was corrected with a chest tube. The chest x-ray revealed a large aortic mass. Two hours later, 1.5 liters of blood issued from the patient's chest tube and she died. Postmortem examination revealed a large perihilar abscess of the left lung, which had eroded into the aorta.

1. Percentages of diagnostic success. Cabot, JAMA 26:2295, 1912.

Disease	%
Acute pericarditis	20
Hepatic abscess	20
Vertebral tuberculosis	23
Renal tuberculosis	33
Acute endocarditis	39
Cirrhosis	39
Miliary tuberculosis	52
Septic meningitis	64
Mitral stenosis	69
Gastric cancer	72
Diabetes mellitus	95

Comments—Diagnostic Errors

1. The main error in this patient's complex management was the failure to recognize and correctly interpret the enlarging aortic arch. There was a delay of two weeks from the onset of change of aorta size until death. The patient was seen by several house officers and attendings, and her other problems took the focus off the abnormality seen on chest x-rays. Alfred North Whitehead states, "It requires a very unusual mind to undertake the analysis of the obvious,"[41] and in reviewing this patient's chest films retrospectively, it is obvious that a significant change had occurred.

2. The second error was in the diagnosis of pneumonitis. The changing aortic knob and leukemoid reaction of 44,000/cu mm did not alert the physicians that their initial diagnosis was wrong. The importance of saying, "I don't know," is clearly evident in this case, because once a diagnosis is made, the physician can rest.

Case 4: A 51-year-old white man was admitted for evaluation of a two-month history of low back pain, weakness, and a two-week history of right anterior pleuritic chest pain. He had lost 6.8 kg (15 lb). Because of an abnormal chest film, he was admitted to the surgical service for evaluation. On physical examination he was alert and in no distress. Vital signs were normal. Chest examination revealed the rib cage to be diffusely tender to manual compression. Lab-

oratory data revealed pancytopenia, with hematocrit 30.5%; hemoglobin 11.1 gm/100 ml; WBC 4.0/cu mm; and platelet count 37,000/cu mm. Urinalysis showed proteinuria (3+), BUN 32 mg/100 ml; creatinine 1.9 mg/100 ml; calcium 12.7 mg/100 ml; phosphorus, 3.8 mg/100 ml; uric acid 11.0 mg/100 ml; alkaline phosphatase, 100 units; total proteins 6.7 gm/100 ml; and albumin, 4.3 gm/100 ml. Chest films revealed a pleural mass on the right, and multiple pathologic rib fractures.

In the hospital, the patient continued to have chest pain and on the third day a cardiology consultation was obtained. The cardiologists' impression was that the pain was nonischemic and further diagnostic tests were recommended including a bone marrow examination, bone scan, rib details, and chemical studies of urine. The bone scan revealed multiple lesions, and the patient received platelet and blood transfusions before surgery on the 11th hospital day. A right anterior thoracotomy and rib resection were performed, and permanent section revealed a plasmacytoma. His postoperative course was complicated by a blood urea nitrogen level of 79 mg/100 ml, creatinine 8.9 mg/100 ml; hypercalcemia, pancytopenia and a *Pseudomonas* pneumonia. Hematology consultation was obtained, and a bone marrow study revealed 45% plasma cells; urine protein electrophoresis demonstrated a 190 mg/100 ml lambda chain paraprotein spike. The patient's hospital course was complicated by chronic renal failure (myeloma of the kidney determined by biopsy) and maintenance hemodialysis, and he died with sepsis three months later.

Comments—Diagnostic Errors

1. The initial assessment of the patient's abnormal chest film, proteinuria, pancytopenia and hypercalcemia, and hyperuricemia suggested "cancer somewhere," which eventually was established as multiple myeloma, but the approach to the diagnosis was delayed and inappropriate. The pancytopenia was treated with replacement therapy only as preparation for thoracotomy, with no explanation of why pancytopenia was present. The abnormal renal function tests were not repeated until after the surgical procedure, and acute renal failure probably was developing while the patient awaited surgery.

2. The responsibility of the consultant is clearly evident as there was a failure to follow through on his recommendations and to assist in the ongoing care of the patient. The indications for thoracotomy, on the basis of Sutton's law ("You go where the money is") was untenable because many clues were present which could have established the diagnosis in a less hazardous manner.

3. The role of a clinician taking the primary responsibility of synthesizing a patient's total picture stands as the hallmark of sound clinical judgment.

Frequency of Diagnostic Errors

The exact incidence of diagnostic errors is difficult to ascertain, but data correlating *ante mortem* clinical diagnoses and necropsy findings continue to show a significant percentage of errors even in academic teaching institutions.

The first major review of diagnostic errors was in *JAMA*, 1912, by Richard Cabot, MD, Massachusetts General Hospital, where 3,000 autopsy cases were reviewed retrospectively with the *ante mortem* diagnoses.[4] Specific percentages of success are listed in Fig 1.

Several frequent and well-recognized pitfalls which existed in 1912, and still pertain to the practice of medicine in 1977, should be mentioned for comparison.

1. "Rheumatism." The symptom complex of articular disease often turned out to be unsuspected aortic aneurysm, cancer of pleura, osteomyelitis, tuberculous osteomyelitis, syphilitic periostitis, lead poison-

ing, gonococcal infections, and alcoholic neuritis. "Rheumatism is one of the most dangerous of all diagnoses to the conscientious physician."[4]

2. "Malaria" often turned out to represent tuberculosis, hepatic abscess, or hepatic syphilis. The problem of recurrent fever in 1912, often ascribed to malaria, continues to be a diagnostic dilemma. The classic treatise on "Fever of Undetermined Origin," by Beeson and Petersdorf,[31] states that most patients with FUO are not suffering from unusual diseases; instead they exhibit atypical manifestations of common illnesses—tuberculosis, sepsis, blood dyscrasias, pulmonary emboli, rheumatic fever, etc. They further commented that delay in diagnosis occasionally resulted from incomplete analysis of available information. Examples included the failure to think of brucellosis in an abattoir worker, or malaria in a man who recently visited Panama, or dysphagia in a man with esophageal cancer.

3. "Hemorrhoids" often mask cancer of the rectum. This error continues to persist today and stresses the thorough evaluation of symptoms which appear initially to be of no significance but ultimately are diagnosed when further spread prevents curative therapy.

4. "Neurasthenia" or "mental exhaustion" when it appears in middle age usually is a symptom of organic disease such as dementia paralytica (syphilis), myxedema or hyperthyroidism, tuberculosis, atherosclerosis, or chronic nephritis. The diagnostic approach to neurologic or psychiatric symptoms requires a broad knowledge and differential.

A review of series published in the European and English literature dealing with the problem of diagnostic errors is listed in Fig 2. The incidence varied from 6% to 68% with a mean percentage of 38%. From these data it can be concluded that autopsies earlier did and still do reveal a considerable number of errors in clinical diagnoses in patients dying in hospitals. There is no convincing sign that the errors have diminished over the years, although the diseases and types of mistakes have changed. Part of the explanation might be that the results of gradually improved diagnostic facilities are cancelled out by a gradually increased proportion of older patients, among whom diagnostic errors are more frequent. It seems natural, and is in accordance with previous findings,[15] that greater difficulties and more inaccuracies exist in diagnoses in elderly patients. Their symptoms are often blurred and the presence of multiple diseases further complicates the picture. From the most recent prospective study dealing with diagnostic errors,[13,14] the clinician's judgment of the certainty of diagnosis turned out to be a good measure of the risk of inaccuracy. When the diagnosis was estimated as fairly certain, it was revealed to be erroneous in 25% of cases; but when the diagnosis was listed as probable, the incidence increased to 45%. The importance of routine autopsies, even in clear-cut cases of death, is stressed by the finding of errors in 25% of cases. The value of autopsies is occasionally criticized but many arguments favor their continuation. They have a great postgraduate educational value for clinicians to check the exact cause of death of their patients. By disclosing mistakes, autopsies stimulate critical reasoning and increase the willingness to reconsider which in turn should improve future patient care. The postmortem examination also is important for accurate mortality statistics since significant misclassification results from reliance of death certificates based on clinical diagnoses.

The importance of knowing the exact cause of death for the relatives cannot be underestimated, especially when on rare occasions contagious diseases are disclosed. "Let the dead teach the living,"[14] still is a relevant epigram.

Approach to the Patient: The Clinical Method

"In the practice of medicine the physician employs a discipline which seeks to utilize scientific methods and principles in the solution of its problems, but it is one in which, in the end, both science and art are webbed. The art of the clinical examination comes from attitudes and qualities that are neither obtained nor easily detected by scientific procedures: the clinician's awareness of people and of human needs. These properties of care and compassion, although sometimes dismissed as merely bedside manner, are the fundamental and most important tools of any clinician. With

2. Frequency of diagnostic errors as estimated from autopsy materials.[14]

Senior Author	Study Period or Year of Publication	Autopsy Rate	No. of Autopsies	% Diagnostic Error Rate
Karsner	1919	20	600	68
Swartout	1933-37	40	8,080	21
Wallgren	1934-39	? Low	1,000	49
Munck	1940-49	78	1,000	20
Gruver	1947-53	76	1,106	6
James	1951-52	24	1,889	48
Borris	1952	50	1,078	33
Landes	1954-64	48	1,132	48
Wilson	1958	53	265	47
Justin-Besancon	1958-61	79	1,000	30
Heasman	1959	65	9,501	55
Otterland	1960	98	327	28
Schulz	1967	18	4,652	52
Holler	1970	50	200	48
Britton	1970-71	96	383	30
			Total 32,213	Mean 38%

them, he can often give healing or comfort where science fails or does not exist. Without them, his science is unsatisfactory, no matter how excellent."[37]

The clinical method as taught in our medical schools and textbooks is based on the acquisition of data from the history, physical examination, electrocardiogram, chest x-ray, and diagnostic laboratory. The "five finger" approach to clinical diagnosis and bedside diagnosis is a helpful guide as outlined by Harvey and Perloff.

History-taking, the most clinically sophisticated procedure of medicine, is an extraordinary investigational technique, because in few other forms of scientific research does the observed subject talk. The acquisition of data by this verbal process is far more complex than the techniques of physical examination or of laboratory tests, and taking history cannot be taught by didactic lectures or text books. The student physician must be able to sense the subtle interplay between the patient and the clinician, but it is unfortunate that in our modern medical school curriculum little time is spent dealing with this aspect of medical education. Many authors have advocated direct monitoring of the data acquisition process by both medical students and house officers to insure a high level of competence.[27-30,37]

The importance of an adequate history in preventing diagnostic errors was stated by Gruver and Fries[8] when they noted that in 45% of their misdiagnosed cases, no history was obtainable directly from the patient.

Frequently observed errors in performing the physical examination have been classified by Wiener and Nathanson as errors of technique, omission, detection, and interpretation.[27]

Direct observation of house staff and students has been utilized in several teaching institutions so that errors in these areas of patient examination can be identified and corrected.[27-30] The history and physical examination serve as the foundation of data acquisition, and each complements the other. The history provides the physician with data from which his medical knowledge and experience deduces the possibilities of his differential diagnosis. The clinician should go to the bedside with this basic information, because this knowledge enables him to specifically test several of his working diagnostic possibilities against the physical findings. As Goethe states, "One sees what one knows,"[41] and it is through the eyes of an informed physician that specific possibilities are confirmed or supported by the examination.

The role of the clinician in establishing the correct diagnosis is greatly assisted by our diagnostic technologic facilities. There are specific clinical settings where no history is obtainable and physical findings are nonspecific, and immediate diagnostic support from a clinical laboratory is paramount. An example is the comatose patient who is brought to a large teaching hospital with no available historical data. The basic laboratory support may often give the specific therapy. In Plum and Posner's treatise, "Stupor and Coma,"[40] the protean clinical manifestations of hypoglycemic coma documents the need and value of screening laboratory tests.

The excessive reliance on the laboratory data to the point of ignoring the history and physical data demand additional discussion. Clinicians commonly feel that specific laboratory data can rule out a disease, and their approach to medical problems is based on ruling out diseases instead of striving to establish a specific diagnosis.

Clinicians find comfort in having laboratory results that support their diagnoses, although they frequently ignore those laboratory results which do not. Their clinical bias interferes with their proper interpretation. The excessive reliance on roentgenographic results should be stressed, and physicians should realize that these studies may not disclose pathologic changes. The causes of diagnostic errors in radiology are threefold: (1) failure to demonstrate the lesion; (2) failure to see the lesion; and (3) misinterpretation of a seen lesion.[19] Most of our educational programs stress the interpretation of the "seen lesion." What is not stressed is that there is a large area of radiology in which no amount of honing will produce the right answer because the evidence is nonspecific and inadequate for a specific diagnosis. Diagnostic error due to failure to demonstrate the lesion when it could have been shown with more appropriate techniques is commonplace in radiology.

Disagreements in chest roentgenogram interpretation should alert the clinician to develop a healthy skepticism toward the infallibility of roentgenologic results. In one series, disagreements in chest film interpretation were determined by having five staff radiologists interpret 100 chest films with a total of 173 abnormalities present. An average of 25% of important findings were omitted by the individual readers.[20]

Summary

The solution to the problems of diagnostic errors in clinical practice is a continuous one for all physicians. On the subject of diagnostic errors, Francis Carter Wood, MD, commented in 1919:

"... the only way to improve diagnosis is to follow our cases with the greatest of care and to study our practical results and those of others. Failures in diagnosis are often due, not so much to lack of knowledge, as to lack of thoroughness and care in examination. Too much reliance is placed on laboratory reports, which are popularly supposed to have an infallibility with which no laboratory man would credit them. One way in which to improve the treatment of patients is to have students in the hospital wards. In teaching them, the physician teaches himself."[5]

The present discussion was attempted to clarify some of the points relative to diagnostic errors. As physicians we must always remain students. Osler commented on student education that educators should strive to "... give him good methods and a proper point of view, and all other things will be added as his experience grows."[38]

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Evaluation of hoarseness

Vincent G. Caruso, MD; Steven Parks, MD

Introduction

Hoarseness is the most common and usually the earliest symptom of laryngeal disease. It may be defined as a change in one's normal voice and is produced by a change in size, shape, movement, or approximation of the vocal cords. It may be caused by laryngeal, systemic, or neurologic disease.

Although transient hoarseness usually is caused by benign disease, persistent hoarseness should be considered to indicate cancer until proven otherwise. Early diagnosis may lead to cure with preservation of function, but delay in diagnosis and treatment will certainly lead to the slow and morbid demise of the patient from local extension and regional metastasis.

It is essential for the primary care physician to realize the significance of hoarseness and to recall the differential diagnoses of hoarseness when examining patients with this symptom.

This article will enable you to (1) recall the various causes of hoarseness as you examine your patient; (2) relate other symptoms and signs to the chief complaint, make a diagnosis, and effectively manage or appropriately refer your patient; (3) perform a proper examination of the larynx using a laryngeal mirror; and (4) recognize laryngeal cancer in its early and curable stages.

Anatomy

The larynx is divided anatomically into three compartments: the glottis, supraglottis, and infraglottis. The glottis consists of the true vocal cords. The supraglottis consists of the false vocal cords, the arytenoid cartilages, and the epiglottis. The infraglottis is below the level of the vocal cords and is supported by the cricoid cartilage and cricothyroid membrane. Each of these three compartments has separate lymphatic drainage. Consequently, carcinoma confined to one compartment may be excised without disturbing the other two.

The mucosa of the vocal cords is loosely adherent to the underlying structure. Inflammation from infection, allergy, or trauma may cause edema within the submucosa. This leads to changes in size and shape of the vocal cords and to changes in their vibratory characteristics. Small lesions on the vocal cords will also change their vibratory characteristics.

The larynx contains five functional cartilages as illustrated in Fig 1. The arytenoid cartilages move the vocal cords laterally for respiration and medially for phonation, Valsalva's maneuver, coughing, and swallowing. Tilting of the thyroid cartilage on the cricoid cartilage lengthens and tightens the vocal cords and is necessary for normal vocal quality and pitch. This tilting is accomplished by the cricothyroid muscle which is the only muscle of the larynx enervated by the superior branch of the laryngeal nerve. The remainder of the intrinsic laryngeal muscles are enervated by the recurrent branch of the laryngeal nerve. Recurrent laryngeal nerve paralysis causes vocal cord paralysis, usually in the midline or paramedian position.

Neuroanatomy

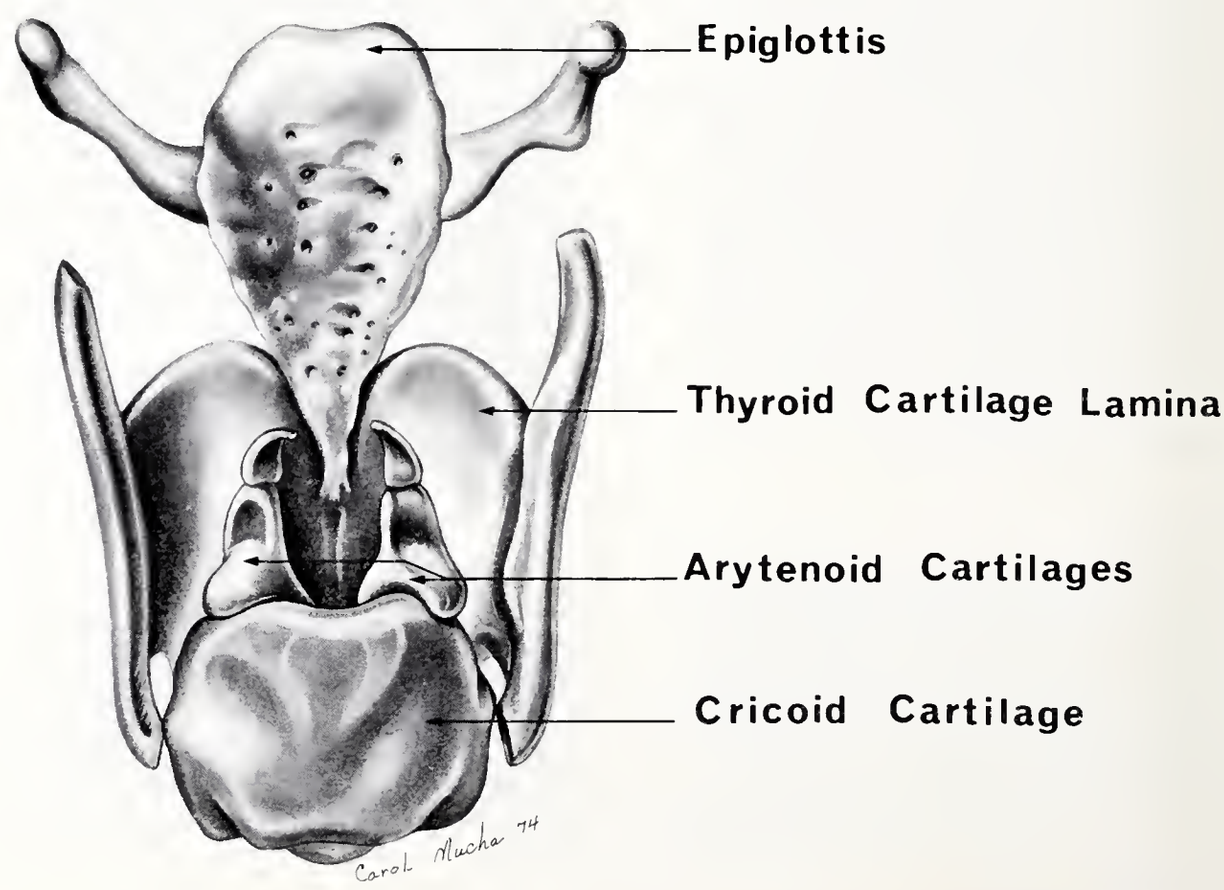
The recurrent laryngeal nerve and the superior laryngeal nerve are branches of the vagus nerve which has its origin in the nucleus ambiguous of the brain stem (Fig 2). This nucleus receives input from the corticobulbar tracts for conscious

laryngeal movement and from the cerebellar and extrapyramidal centers for the tonus and fine balance required in talking and swallowing. The cranial portion of the spinal accessory nerve roots contains the efferent fibers from the nucleus ambiguous destined for the intrinsic laryngeal musculature. They enter the jugular foramen to join the vagus nerve in or just below the jugular foramen. The cranial nerves (IX and XI) exit from the skull through the jugular foramen along with the tenth cranial nerve. The superior laryngeal nerve arises from the vagus nerve just below the nodose ganglion. It is the nerve of the fourth branchial arch, and in addition to its one motor branch, previously mentioned, it supplies sensation to the supraglottic larynx. The recurrent branch of the laryngeal nerve is the nerve of the sixth branchial arch and loops around the subclavian artery on the right side (a fourth arch derivative) and the ductus arteriosus (a fifth arch derivate) on the left. It courses in or near the tracheoesophageal groove and close to the inferior thyroid artery. Disease anywhere along the cortical tracts, corticobulbar tracts, or peripheral nerves outlined here may cause vocal cord paralysis and hoarseness, as illustrated in Fig 2. The anatomical location and etiology of the lesion causing the hoarseness can sometimes be deduced by considering associated deficits.

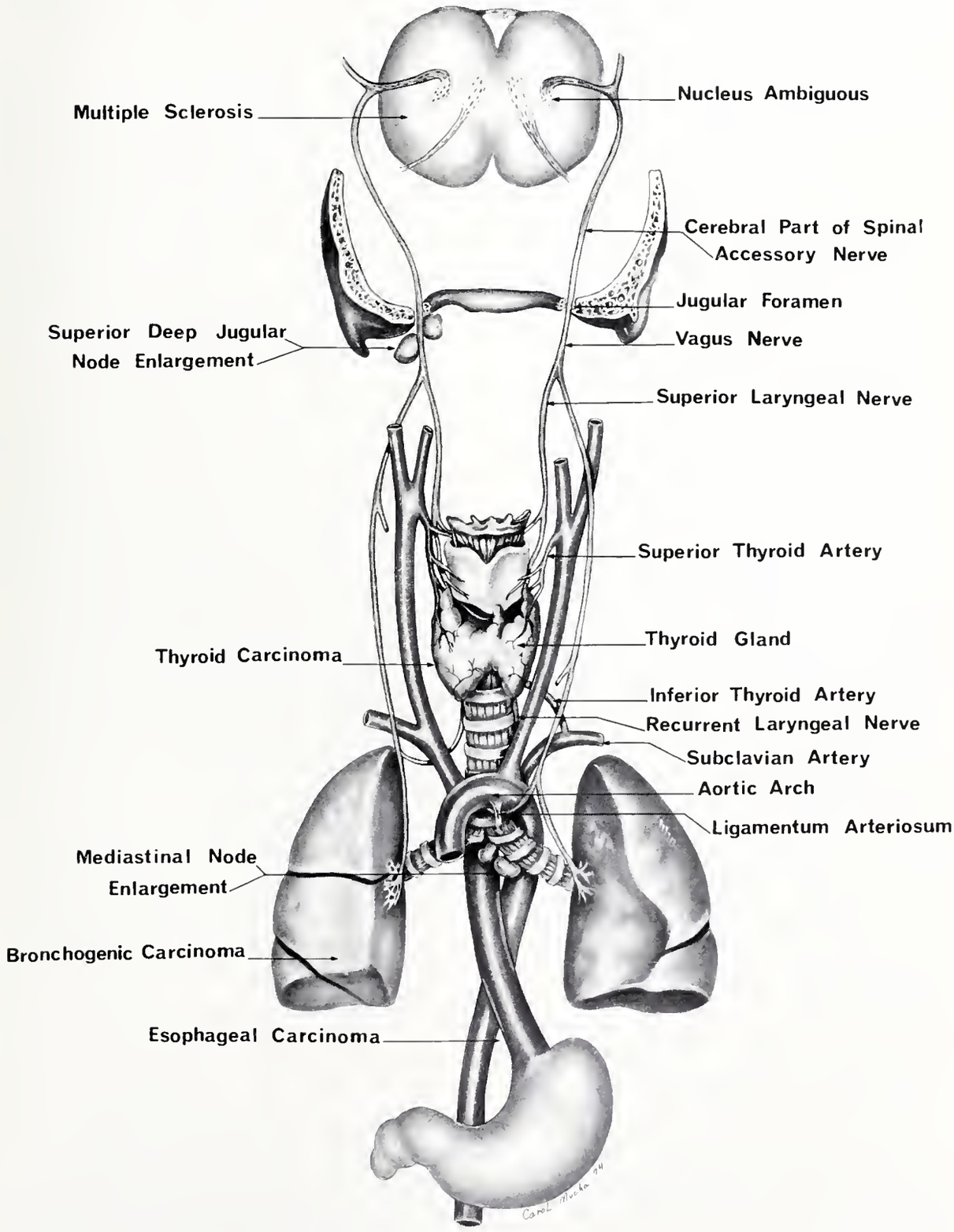
Vocal Cord Paralysis

Vocal cord paralysis is an important cause of hoarseness. Central nervous system diseases are responsible for about 10% of all cases of vocal cord paralysis.[1] Although they are not common, they may be encountered in a family practice. De-

1. Cartilages of the larynx.



2. Anatomy of the recurrent laryngeal nerve.



generative diseases such as multiple sclerosis, central nervous system infections such as tabes and poliomyelitis, tumors, vascular accidents, and head trauma may all be responsible for vocal cord paralysis that results in hoarseness.

The most common (90%) and most important causes of vocal cord paralysis, however are peripheral.[1] Neoplastic diseases outside the CNS cause about 40% of all vocal cord paralysis.[2] Because of its course in the mediastinum, the left recurrent laryngeal nerve is paralyzed more commonly than the right recurrent nerve. Bronchogenic carcinoma with mediastinal metastasis is the most common cause of left vocal cord (recurrent nerve) paralysis. Carcinoma of the esophagus and mediastinal metastasis from extrathoracic cancer, aortic aneurysm, cardiac enlargement, or apical pulmonary tuberculosis may also cause paralysis of the left vocal cord. Thyroid malignancy may involve either the right or left recurrent nerve causing vocal paralysis. Iatrogenic causes include thyroidectomy, radical neck dissection, tracheostomy, and prolonged tracheal intubation with a cuffed tube, as in a long procedure requiring a general anesthetic. The latter probably produces inflammation of the nerve in the tracheoesophageal groove from the cuffed tube within the trachea. Toxic and infectious causes include lead poisoning, alcoholic neuritis, Guillain-Barre syndrome (radiculoneuritis), influenza, mononucleosis, diabetic neuritis, polyarteritis, and sarcoidosis. About 17% of unilateral cases are idiopathic.[1]

Isolated superior laryngeal nerve paralysis may be the result of high ligation of the superior thyroid artery during thyroidectomy.

Intrinsic Laryngeal Disease

Because of its intricate design, small lesions within the larynx produce distressing symptoms of which hoarseness is usually the earliest. Acute viral or bacterial infection of the upper respiratory tract is a common cause of hoarseness and is usually self-limiting or responsive to antibiotics. Inhalation of fumes or dry air (especially when mouth breathing) is often an important contributing factor in hoarseness. Vocal abuse is an important cause of vocal nodules or polyps, and it also may contribute to persistent vocal cord edema with its hoarseness after the precipitating factor such as a viral upper respiratory tract infection is gone. These lesions are best treated with medication, surgery, and speech therapy, or a combination of these. Most cases of inflammatory laryngitis resolve within one or two weeks, especially if contributing factors such as smoking and vocal abuse are eliminated. Chronic granulomatous diseases such as tuberculosis, syphilis, and fungal infection, and endocrine causes such as myxedema and pregnancy should be considered in the differential diagnosis. Trauma to the larynx, both external (such as in a dashboard injury) and internal (as from a traumatic intubation) may cause hoarseness or airway obstruction, and require immediate attention to prevent asphyxia or late complications such as stenosis. Rheumatoid arthritis can involve the cricoarytenoid joint with resultant hoarseness.

If hoarseness persists for more than two weeks and you cannot visualize the larynx, you should refer the patient to an otolaryngologist. If he cannot visualize the cords completely, a direct laryngoscopy will be necessary to rule out a vocal cord lesion.

Laryngeal Tumors

This category of laryngeal diseases is most important, because it is in this area that we can do the most for our patients by making an early diagnosis. These are patients whose hoarseness lasts for more

than two weeks. A complete head and neck examination, general history, and physical examination are necessary. The larynx, including the anterior commissure of the vocal cords, must be adequately visualized. Any lesion must be noted and vocal cord mobility assessed. Depending on the site and size of the tumor, the patient may also have trouble swallowing, hemoptysis, or dyspnea.

With early visualization of the larynx using a mirror, laryngeal carcinomas are being diagnosed in their early stages. This leads to a high cure rate using irradiation or conservation surgery, or both, with little or no loss of function. Whereas the five-year survival for all patients with carcinoma of the vocal cords is about 80%,[3] the five-year survival for early T_1 lesions is 98%. The cumulative five-year survival for patients with cancer in different areas of the larynx variously treated is shown in Fig 3.[4]

There are three reasons for such good results in the treatment of stage I and stage II laryngeal cancers. The first is the protection afforded by the cartilaginous barrier to cancer invasion. The second is that the lymphatic drainage of the supraglottis is different from that of the vocal cords, and within each of these compartments, each side drains independently. The third is that very small lesions of the vocal cords cause hoarseness. For these reasons, conservative surgery of the larynx, for example, hemilaryngectomy or supraglottic laryngectomy, conserving both the voice and the airway, has been quite successful; however, the diagnosis must be made while the prognosis is still favorable. Surgery, irradiation, and chemotherapy are still the mainstays in the treatment of laryngeal cancer; however, the treatment of laryngeal cancer is changing as newer modalities such as cryosurgery, laser surgery through the operating microscope, and immunotherapy are developed.

Help in Diagnosis

An adequate history is essential because it usually will give you the cause of hoarseness and suggest the appropriate treatment. The most important part of the physical examination, especially in patients with persistent hoarseness, is the mirror examination of the larynx. This is most essential for hoarseness lasting more than two weeks; therefore, we will review the important points in history taking, physical examination, and mirror examination. The fiberoptic laryngoscope may be helpful in some situations where adequate visualization with the mirror is impossible. When indirect laryngoscopy is unsuccessful in the patient with persistent hoarseness, direct laryngoscopy is necessary.

Diagnostic Strategy

The duration of the hoarseness is a most helpful clue in separating patients with common and easily treated causes of transient hoarseness from the smaller group of patients in whom persistent hoarseness may be the result of serious or life-threatening diseases. Laryngitis beginning with an upper respiratory infection, exposure to fumes, or vocal abuse is usually transient but it may be prolonged by smoking and continued voice use. Therefore, you should inquire about the patient's occupation and vocal habits. Does he work in a machine shop and raise his voice to talk with his coworkers? Does he sing? Has the patient had previous neck or chest surgery which may explain intrinsic laryngeal trauma from an endotracheal tube or trauma to a recurrent nerve?

Any history of allergy should be noted,

3. Cumulative five-year survival for patients with cancer in different areas of the larynx.

Stage	Description	5-year Survival Glottis %	5-year Survival Supraglottis %
I	($T_1N_0M_0$) Localized to one region of the larynx, ie, one or both vocal cords with normal mobility	94	91
II	($T_2N_0M_0$) Limited to the endolarynx without fixed cords	85	82
III	Primary spread beyond larynx or fixed cords or regional lymph node involvement	59	49
IV	Any T with fixed nodes or distant metastasis	9	9

especially if the symptoms occur concomitantly with the hoarseness. Puberty, pregnancy, and myxedema are systemic causes of laryngeal edema and may be recognized by an appropriate history. Purulent nasal discharge from sinusitis may be a cause of persistent hoarseness. Other symptoms of intrinsic laryngeal disease such as dyspnea, hemoptysis, dysphagia, or throat pain are most important to the history, for they suggest the presence of laryngeal neoplasm.

Physical examination begins with an assessment of the patient's overall appearance: Is he anxious? Does he appear to be chronically ill? Are there nicotine stains on his fingers? Is he coughing or sneezing? A thorough examination of the head and neck will exclude sinusitis, head and neck cancer, and associated neurologic diseases. Mirror laryngoscopy usually will confirm your diagnosis. It may reveal the edema or erythema of acute laryngitis, glistening vocal cord polyps, vocal cord nodules or papillomas, carcinoma, or vocal cord paralysis. In some cases, patients may be using their voices incorrectly, as in plica dysphoria ventricularis, and when attempting to say "eeeeee" during a mirror examination, the patient's false cords will be seen to approximate. When paralyzed vocal cords are noted, a complete neurologic examination is performed.

Mirror Laryngoscopy

To help you in your mirror examination of the larynx, you may want to use this checklist:

1. The patient should sit in a straight-backed chair and lean forward.
2. If you use a head mirror for light, the light source (100- or 200-watt bulb) should be by the patient's side and close to you.
3. If you are right handed, the mirror is held in the right hand and the patient's tongue in the left hand with the light source to the patient's right and the head mirror over your left eye. The mirror is warmed by an alcohol lamp and tested on the back of your hand. (A cold mirror will fog.)
4. Gently lift the patient's uvula with the back of the mirror and shine the light from your head mirror onto the laryngeal mirror while looking through the hole in your head mirror. The patient may gag.
5. Do not quit now! Give the patient 5 cc of 4% Xylocaine gargle or .5% Tetracaine or Cetacaine spray. Five milligrams of Valium usually will quiet the worst gag reflex. It may be given by mouth one hour before the next visit. Always check for allergic sensitivities before using these drugs.
6. Is the epiglottis blocking your view of the anterior commissure? As the patient says "eeeeee!" the epiglottis will tend to fall forward. This procedure also will help you to assess vocal cord mobility.
7. Can you not see the anterior commissure? Occasionally this happens, even to the most skilled practitioners. It is an indication to refer the patient to an otolaryngologist. If he cannot see the structure, he is obliged to perform a direct laryngoscopy. Remember the aphorism, "Death lurks under the overhanging epiglottis."

The evaluation procedures in this article will result in the diagnosis and successful management of most cases of hoarseness. In addition, an earlier diagnosis will provide a better prognosis for the patient with laryngeal cancer.

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Oral antibiotic therapy for acute aspiration lung abscess

William Weiss, MD

Acute primary lung abscess usually is caused by aspiration of anaerobic organisms. The drug of choice is penicillin G, and adequate doses administered orally are as effective as those given parenterally. The occasional case which fails to respond to penicillin G may be treated successfully with oral forms of tetracycline or clindamycin. Resolution usually is complete in several weeks to several months.

Introduction

Community-acquired uncomplicated acute lung abscess is a clinical entity with anaerobic bacteria the cause and aspiration the pathogenetic mechanism.[1-4] In differential diagnosis, it should be considered after specific causes of cavitating pneumonia have been eliminated. The clinical picture is fairly stereotyped in that (1) a majority of cases occur in men during the fourth and fifth decades of life; (2) almost all patients have episodes of obtunded consciousness; (3) onset usually is insidious; (4) the degree of illness is often mild to moderate; (5) fever and leucocytosis are commonly mild to moderate; and (6) the roentgenographic manifestation is that of segmental pneumonia with cavitation and an air-fluid level.

The drug of choice generally is accepted to be penicillin G. Occasional failures occur, but these cases may be treated successfully with tetracycline or clindamycin. Since most of the patients are not very sick, there is no need to give an antibiotic parenterally. Unless the patient is vomiting, which seldom is a problem, the oral route is preferable provided the dose is adequate, especially since the duration of therapy is weeks. The success of treatment with oral forms of these drugs has been documented in a series of 89 patients treated at the Philadelphia General Hospital from 1962 to 1973.

Material and Method

The patients treated were those admitted to the hospital with diagnoses of segmental pneumonia and cavitation in which specific causes of cavitation were excluded, such as tuberculosis, gram-negative bacilli, staphylococcus, carcinoma, pulmonary infarction, and suppuration secondary to other pulmonary disease. The cases were chosen on the basis of an acute pneumonic appearance on chest film. Symptoms generally had been present for less than eight weeks.

Routine admission studies included blood count, fresh aerobic sputum culture for pyogens, smears and cultures for tubercle bacilli, and postero-anterior and lateral chest roentgenograms. Forty-eight patients underwent bronchoscopy during the first two weeks of therapy with negative results except for purulent bronchitis. Blood cultures were done in half the cases with negative results. Sputum was not routinely examined by Gram's stain or anaerobic cultures.

From 1962 to 1967, 40 patients were initially treated with oral penicillin G in doses of 750 mg (1.2 million units) four times a day. In 1968 and 1969, 13 patients were initially treated with oral tetracycline in doses of 500 mg four times a day. From 1970 to 1973 a controlled clinical trial was carried out to compare results of oral and parenteral penicillin G. Eighteen patients were treated with the oral regimen: 13 received 5 million units of aqueous penicillin intravenously every six hours for two weeks followed by a course of oral penicillin; and five received

500,000 units of aqueous penicillin intramuscularly every eight hours.

Chest films were repeated at one- to two-week intervals and therapy was continued until the pulmonary lesion either resolved or remained unchanged on three consecutive films. Patients were hospitalized until they were afebrile and asymptomatic, then were followed in the clinic. No therapy other than an antibiotic and postural drainage was used.

Results

The details were reported in two previous articles,[4,5] and the results in the total series are summarized here.

Two-thirds of the patients were aged 30-49 and only 23% were age 50 or over; 89% were men. All but 3% had a condition leading to episodes of obtunded consciousness: alcoholism in 79%, and epilepsy or heroin addiction in 18%. Symptoms had been present less than two weeks in 32%, two to three weeks in 33%, and four weeks or longer in 34%. The average initial maximum oral temperature was 38.9 C (102 F), and most of the patients had a leucocyte count between 10,000 and 15,000/cu mm with an elevated percentage of polymorphonuclear leucocytes.

Almost two-thirds of the cavities initially measured 3 cm or more in greatest diameter and a few were as large as 9 cm (Fig 1). Almost two-thirds were in the right lung. Segmental location of the abscess could be determined in all but two cases. In the right lung, all but 1 of the 57 abscesses were in apical or posterior segments, mainly in the posterior segment of the upper lobe and the adjacent superior segment of the lower lobe. In the left lung all but 4 of the 32 abscesses were in apical and posterior segments, mainly in the superior and posterior basal segments of the lower lobe. The commonly involved segments are those which are most dependent in the supine position.

A clinical response to an effective antibiotic in this disease is discernible within five days in terms of symptomatic improvement and defervescence. In this series, 76 patients were treated initially with penicillin, oral or parenteral, and 6 (8%) failed to respond but were successfully treated with oral tetracycline. Thirteen patients were treated initially with oral tetracycline and two (15%) failed to respond but were then successfully treated with oral penicillin.

After beginning treatment with an effective antibiotic, about three-fourths of the patients were afebrile in one week and the rest in two weeks. Symptoms subsided in the same period of time. It is usually possible to document a response to ther-

1. Cavity size and location in 89 patients with acute aspiration lung abscess.

Characteristic	No. Patients	%
Cavity diameter, cm		
<3	33	37
≥ 3	56	63
Segmental location of cavity		
Right lung	57	64
Upper lobe		
Apical	2	2
Posterior	24	27
Middle lobe	1	1
Lower lobe		
Superior	25	28
Posterior basal	4	5
Uncertain	1	1
Left lung	32	36
Upper lobe		
Anterior	2	2
Apicoposterior	3	3
Lingula	2	2
Lower lobe		
Superior	14	16
Posterior basal	10	11
Uncertain	1	1

apy in the fever curve within four days. If we define a response as a drop in the maximum daily temperature by two degrees or more in those patients whose temperature is 38.3 C (101 F) or greater prior to treatment, data in this series indicate that 11% showed a response in one day, 32% in two days, 32% in three days, 11% in four days, and only 14% required more than four days to show such a drop.

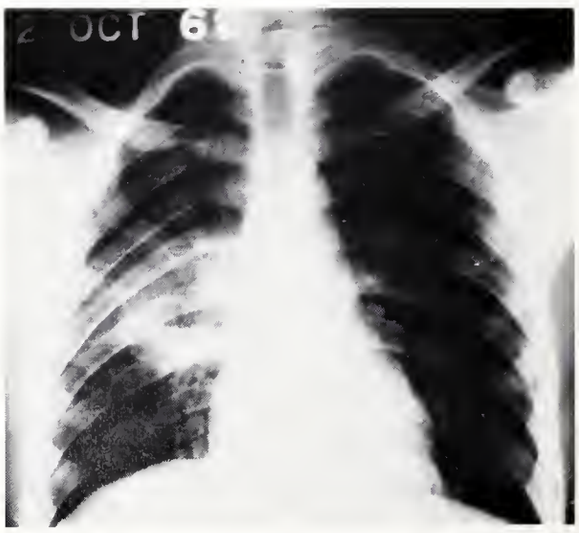
Radiographically the air-fluid level disappeared within a week in most cases and the cavity began to shrink concomitantly with resolution of the pneumonitis. The cavity was lost to view on conventional films as early as two weeks after starting treatment, particularly when the cavities were small at the outset, and the majority disappeared in six weeks. Some were visible for several months, but in all cases followed for three months or more, cavitation was no longer identified with certainty. Some patients were examined further with tomograms and bronchograms after the cavity was no longer clearly visible on plain films, and a residual defect was demonstrable but symptoms were absent.

A few patients were readmitted with a second abscess in subsequent years, but these were located in a segment other than that involved by the first abscess. There were no deaths and no surgery was required in any case.

The roentgenographic course of an illustrative case is shown in Figs 2-4. The initial film on Oct 22, 1968, (Fig 2) showed pneumonitis with central cavitation containing an air-fluid level in the superior segment of the right lower lobe. There was progressive resolution after starting oral penicillin G, and a film 10 weeks later on Jan 7, 1969 (Fig 3), showed no discernible abnormalities. However, a bronchogram on the same day (Fig 4) revealed a small residual cavity.

During the years covered by this series, oral penicillin was found to be an effective method of treatment. Since there

2. Posteroanterior roentgenogram of a patient with an acute abscess in the superior segment of the right lower lobe of the lung, Oct 22, 1968, before treatment with oral penicillin G. There is pneumonitis with a cavity and air-fluid level.



3. Normal conventional film, same patient shown in Fig 2, 10 weeks later on Jan 7, 1969.

were a few failures treated successfully with oral tetracycline, a small group of cases was treated with the latter drug as initial therapy but this did not prove to be any more effective.[4]

Subsequently a controlled trial in 36 patients showed that parenteral penicillin had no therapeutic advantage over oral penicillin, but had the inconvenience and discomfort common to all injectable medications.[5] Eighteen patients were given 750 mg of penicillin G by mouth four times a day, and 18 received either 500,000 units intramuscularly every eight hours throughout therapy (five cases) or 20 million units per day intravenously for two weeks followed by the oral regimen (13 cases). The two groups were comparable with respect to age, race, sex, predisposing conditions, duration of symptoms prior to therapy, maximum initial temperature, initial hemoglobin and white cell count, and cavity size and location.

Two patients on the oral regimen failed to respond in six days; both responded to oral tetracycline in a dosage of 500 mg four times a day. One patient treated with the intravenous regimen failed to respond in six days and was treated successfully with oral clindamycin in a dosage of 300 mg four times a day. Defervescence was complete in 1 to 14 days. Sixteen patients

4. Bronchogram made on the same date as the film in Fig 3. Radiopaque material fills a small residual cavity.

treated with oral penicillin and 15 treated with parenteral penicillin were observed roentgenographically for at least 14 weeks. At the end of this period, only one in each group still had visible cavitation, but these were thin-walled cyst-like lesions with no air-fluid levels, surrounding pneumonitis, or symptoms. The remaining patients were asymptomatic but were lost to follow-up in less than 14 weeks while cavitation was still visible.

Discussion

This series of cases confirms the general impression that penicillin is the drug of choice in the treatment of acute aspiration lung abscess, and demonstrates that penicillin G is just as effective when given by mouth as by injection. The oral dose used was large but readily tolerated without side-effects. Whether the dose needs to be as large as 750 mg four times a day is uncertain, but several cases treated initially with a smaller dose did not show a response until the dose was increased to the protocol level. The optimal duration of therapy is also uncertain, but since oral penicillin G is well tolerated and inexpensive, this is of little importance and continuation of the antibiotic until cure or stabilization probably is warranted.

With the success of antibiotic therapy for this condition, there seems to be no indication for surgery. Even the persistence of a residual parenchymal defect is not an indication for resection because the patients who are adequately treated become asymptomatic and if a recurrence develops, it is usually in another location, sometimes in the contralateral lung, so that "prophylactic" removal of a residual cavity cannot be justified. As long as the underlying condition which leads to obtunded consciousness persists, the patient is at risk and resection is not the answer to this problem. Acute aspiration lung abscess is a disease in which the patience of the physician is apt to be rewarded with a good result.

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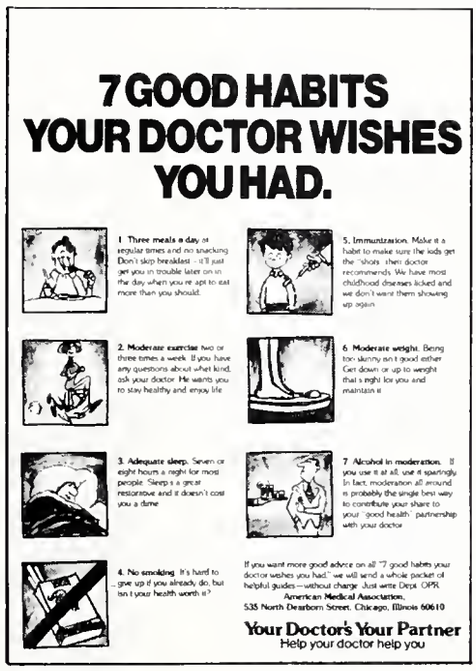

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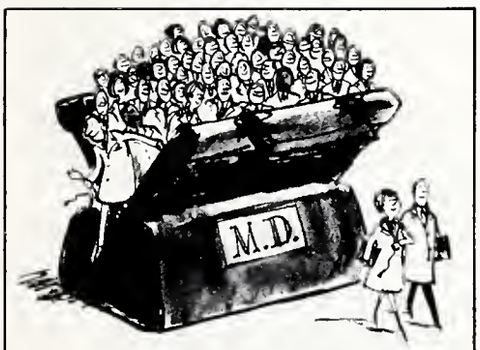

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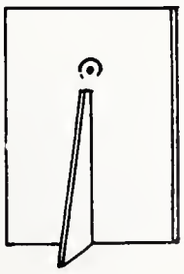

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Introduction

Solutions have been elusive to the shortage of medical manpower, not a new problem to the United States or Texas. Estimates of the shortage nationwide have varied from 20,000 to 50,000 physicians. A patient who waits months to see a doctor, and hours in his office, finds little comfort in the fact that America has increased physician output by 3% each year for ten years compared to a 1% annual population growth. Eighty percent of physicians in the past ten years have specialized, 10% have entered teaching or research careers, and only 10% have gone into general or family practice.

In Texas, more than 10% of the 13,000 nonfederal physicians do not provide direct patient care, leaving a ratio of one physician for every 1,100 people as compared to the national ratio of one to 674.[13]

In Texas, the least favorable physician-to-population ratios are in the Panhandle and East Texas.[13] Of the 15 counties in Texas with no physician, two are in the Panhandle area (see Fig 1).[5] It is the purpose of this article to analyze what attracts physicians and what fails to attract them to an area.

1. Texas counties without a physician.

Borden
Glasscock
*Hartley
Hudspeth
Irion
Jeff Davis
Kenedy
Kent
King
Kinney
*Lipscomb
Loving
McMullen
Rains
Terrell

*Denotes Panhandle county

Method

The population includes all physicians in the area known as the Panhandle of Texas. Data on this population were obtained by a questionnaire of 22 items divisible into the headings of background information and factors influencing the location choice. The questions were either multiple choice or preference ranking. In December 1975, the questionnaire was mailed to 150 Panhandle physicians selected at random and results were collected for one month. One hundred and one responses were received, for a response ratio of 67%. Nine inadequate responses were discarded, leaving 92 for analysis. The specialties of the participants are listed in Fig 2.

Discussion

The shortage of rural physicians may get worse unless something is done. The first step must be to understand location decisions made by doctors. Although doctors seem to have a wider choice of locations than most other professionals, certain factors affect not only the location decision but also the choice of specialties (Fig 3).[9]

John McFarland[8] has classified these factors into five major categories of influence including prior exposure, environmental factors, medical environment, economic factors, and demand determinants. Although this is a convenient categorization, McFarland states, "A phy-

sician about to make a decision to locate his practice refers to his entire scheme of preferences, not only as a physician, but also as a private citizen."

Figs 4 through 7 incorporate factors studied in this report and list the topics for discussion. The most frequent factor cited as important by Panhandle physicians (Fig 6) was the economic status of their communities. In the table adapted from Cooper,[3] economic status is ranked lower, but the state of the economy, as reflected by unemployment rates, is good in the Panhandle (4% compared to more than 8% nationally). Moreover, the economy is broadly based on business, industry, and agriculture. The importance of good economic growth is illustrated by Fahs[6] with one-physician versus no-physician towns in Fig 8.

Related directly to economic conditions

Factors	Specialty	General Practice
Age	Younger	Older
Father's Occupation	Physician	White Collar
Marital Status	Single	Married
Home Community	Large	Small
MCAT Scores	High	Low
Class Rank	High	Low
Personal Finances	Secure	Insecure
Faculty Influence (encouragement)	High	Low

Adapted from Presser, CS: Factors affecting the geographic distribution of physicians. J Legal Med 12-18, 1975.

3. Selected factors affecting specialty choice.

Factors Rated as Important	% of Respondents
Economic reasons	77
Social and cultural reasons	72
Good education for children	68
Influence of wife	50
High medical need	46
Opportunity to join a desirable partnership or group	38
Raised in similar area	37

4. Importance of various factors in the location decision.

2. Analysis of random mailings.

Specialty	No. Mailed	Returns	% of Total
General Practice	57	39	42.4
Surgery	33	16	17.4
Internal Medicine	18	10	10.9
Pediatrics	12	6	6.5
Radiology	10	5	5.4
Ophthalmology-Otolaryngology	7	6	6.5
Obstetrics-Gynecology	5	3	3.3
Miscellaneous	3	3	3.3
Dermatology	3	2	2.2
Pathology	2	2	2.2
Total	150	92	100

Factors Rated as Important	% of Respondents
Opportunity to join a desirable partnership or group	43.0
Climate or geographical features	34.6
Clinical support facilities	21.6
Urban or rural preference	21.5
Income potential	16.5
Influence of wife	15.6
Raised in similar area	14.0
Sports facilities	12.0
High medical need	11.7
Good education for children	10.3
Contact with other physicians	9.7
Continuing education	8.9
Cultural reasons	7.8
Social reasons	3.5
Economic reasons	2.6
Efforts at recruitment	1.9
Social, welfare, home services	1.0
Loans for beginning practice	0.8

*Adapted from Cooper 1975

5. Importance of various factors in the location decision.

Availability of clinical support facilities	88
Income potential	86
Economic conditions	86
Climate or geographical features	85
Quality of education for children	84
Regular contact with other physicians	84
Preference for rural or urban living	78
High medical need in area	74
Opportunity to join desirable partnership or group	64
Access to continuing education	53
Cultural reasons	53
Social reasons	48
Recreation facilities	43
Raised in a similar community	38
Wife's preferences	33
Community efforts at recruitment	21
Social, welfare, home care services	18
Loans for beginning practice	18

6. Percent of Panhandle physicians ranking factors as important or very important.

is the income potential, ranked fourth in this study and fifth according to Cooper, who noted that one of the chief reasons physicians go into small community practice is the likelihood of developing a busy practice. Further, the median income of a community was significantly higher for towns gaining physicians in a 20-year period than for towns losing physicians,[3] substantiating Fahs' findings in Fig 8.

Ranking second in importance in this study is availability of clinical support facilities. This reflects the Panhandle physicians' desire to have an adequate clinical environment in which to practice medicine. This is a reflection of the phenomenon described by Cooper—professional isolation is a fearful part of rural practice and may be the prime factor in deterring physicans from rural practice.[3]

Important in combating isolation is the opportunity to join a desirable partnership or group practice. Although it did not rank as high in this study as it did in Cooper's, "virtually all of these physicians felt that group practice would enhance the viability and attractiveness of primary care practice. Thus, availability of a suitable group practice opportunity is not only important in attracting a physician,

7. Weighted preferences for factors by Panhandle physicians.

Economic conditions	116
Availability of clinical support facilities	109
Quality of education for children	100
Income potential	97
Regular contact with other physicians	97
Climate or geographical features	93
High medical need in area	92
Preference for urban or rural living	91
Opportunity to join desirable partnership or group	77
Access to continuing education	53
Raised in a similar area	45
Cultural reasons	45
Social reasons	41
Recreation facilities	36
Wife's preferences	33
Community efforts at recruitment	23
Loans for beginning practice	18
Social, welfare, home care services	16

*Factors having no importance were given 0 value, some importance was given a 1 value, and very important was assigned a 2 value. The weighted values were then calculated as the total values times the number of times rated.

but it is seemingly important in retaining him."[4] Panhandle physicians apparently agree, since it was ranked as important by 64%. Yet in the weighted preference table (Fig 7), it does fall below the top eight factors considered to have influenced the physician population as a whole.

Third in rankings is quality of the educational system for children. This emphasizes that physicians consider not only professional but also personal factors in decisions. For example, Cooper reports that 19% of wives had an influence on the husband's decision.[4] Thirty-three percent of Panhandle physicians indicated that their wives influenced their decisions to locate. Related factors include the opportunity for the wife's career, the wife's views of her husband's needs, and perhaps most importantly in this group, the physician's respect for the wife's desires concerning income, community, education, and family.

Even though rated low by Panhandle physicians, the size of community in which a physician was reared traditionally has been cited as an important factor in type and location of practice (Figs 9 and 10). According to Bible,[2] "The highest percentage of physicians whose fathers were farmers were practicing in towns with less than 2,500 people. Nearly one-half of the physicians who were practicing in towns with less than 2,500 were reared in a small town. The same percentage (49%) of the physicians practicing in nonmetropolitan cities of 25,000 or more were reared in cities of that size" (Fig 10). Figure 9 has been constructed to compare area population changes made by Panhandle physicians, while Fig 11 represents urban versus rural tendencies among specialties of the Panhandle physicians.

Comparing this study's findings (Fig 9) with those of Bible (Fig 10) indicates a similar distribution. From these data, it is apparent that Panhandle physicians, as a group, fit the often cited relationship that size of community of origin correlates well with size of practice site. Fur-

8. Economic growth rates of remote no-physician towns and one-physician towns in the upper Midwest.

	Economic Growth Rates					
	Decline	Slow	Moderate	Fast	NDA*	Total
No-physician Towns	63.9	9.7	20.0	2.6	3.9	100
One-physician Towns	10.0	24.1	47.7	6.5	11.6	100

*No data available for Montana.
Note: these do not add to 100% because of rounding.

9. Relationship of size of community where reared to size of community where practicing among Panhandle physicians (in percentage).

	Size of Community Where Practicing				
Size of Community Where Reared	<2,500	2,500-9,999	10,000-24,999	25,000-99,999	>100,000
<2,500	100	33.3	29.6	50	22.6
2,500-9,999	0	33.3	33.3	0	17.0
10,000-24,999	0	0	22.2	0	13.2
25,000-99,999	0	0	7.4	0	28.3
>100,000	0	33.3	7.4	50	18.9
Total	100	100	100	100	100

Maldistribution

ther, this is true regardless of state boundaries, as 47% of physicians were from Texas medical schools and the remaining 53% from other states.

Figure 11 demonstrates that certain specialists have tended to move to locations of increased population, some stay in places of equal size, and some move to places of lower population. The significance is the fact that general practitioners tend to move down the population scale more frequently than other physicians. This prolongs the hope that isolated areas will continue to attract physicians. In the Panhandle, the specialty containing the largest percentage of Texas graduates is general practice (Fig 14).

Ranked by 74% of physicians in the Panhandle was high medical need. This large percentage indicates a good physician response to the high public need in the area. The remaining question is whether the communities are succeeding in efforts to recruit a physician, since only 21% felt it was a factor in their decision. It was, however, much higher than the percentage (1.9%) in Cooper's 1975 study. The importance of successful recruitment to rural areas of the Panhandle cannot be overemphasized (Fig 12). The regression coefficient not only indicates a significant association with rural practice but ranked high among factors listed.

Conclusion

Based on these data, potential solutions can be examined. Beginning with the community, it is evident from the tables that good economic conditions will attract physicians. While physicians in rural America indicated satisfaction with their community life and medical practice,[2] future efforts might well be concentrated on providing clinical support facilities;

10. Relationship of size of community where reared to size of community where practicing among physicians in nonmetropolitan areas (in percentage).

Size of Community Where Reared	Size of Community Where Practicing			
	<2,500	2,500-9,999	10,000-24,999	>25,000
<2,500	49	27	19	21
2,500-9,999	14	34	23	16
10,000-24,999	9	10	23	14
>25,000	28	29	35	49

11. Changes in community size from place of rearing to place of practice in Panhandle physicians, by specialty.

No.	Specialty	Population Increase	Population Same	Population Decrease
39	General Practice	56.4	23.1	20.5
16	Surgery	87.5	12.5	
10	Internal Medicine	80.0	20.0	
5	Radiology	80.0	20.0	
6	Ophthalmology-Otolaryngology	66.7	33.3	
2	Pathology	50.0		50.0
2	Dermatology		100.0	
6	Pediatrics	100.0		
3	Obstetrics-Gynecology	100.0		
3	Miscellaneous	100.0		

upgrading educational systems; developing social, cultural, and recreational facilities; and maintaining efforts at recruitment to attract and retain good physicians.

Solutions must also involve colleges, medical schools, and the legislature. Further suggestions might include:

1. Increased technical assistance to physicians in forming medical groups in rural areas.[10] This would help alleviate feelings of professional isolation, reduce call schedules, boost physician income slightly, and, in the process, enhance the economic stability of the economy.

2. Education of rural community leaders to the potential for rural development,[10] or as mentioned earlier, improvement of schools, businesses, and social opportunities.

3. Admittance of more medical students with rural backgrounds.

4. Increased recruitment by Panhandle citizens among medical students, house staff, and military personnel, keeping in mind the increased chance of success if physicians with factors compatible with their community are recruited. It is apparent from this study that it would be most productive for Panhandle communities to recruit general practitioners originating from similar sized communities and attending Texas medical schools. Other studies have shown that recruiting might be most effective during the house staff training period, although medical school and military might contribute significantly (Fig 13).[4]

5. Establishment of greater numbers of student preceptorship programs in the Panhandle.

6. Increased exposure of primary care residents to rural health care, with a positive attitude in their training toward rural practice.

The purpose of this article was to identify factors Panhandle physicians indicated as important to their decision to locate their practice. It is hoped that information contained in this report might be used by a community in efforts to recruit physicians and by health planners to deal with maldistribution problems. More specifically, it is aimed at helping

12. Regression analysis of background characteristics and ranked decision influences of primary care physicians.[4]*

Variables	Regression Coefficient	F Value
Organized efforts of community at recruitment	−1.25	8.55
Social life	− .84	3.99
Cultural advantages	.77	16.78
Preference for urban or rural living	− .73	12.87
High medical need in area	− .33	4.46
Place of rearing	.32	186.08
Recreation facilities	− .29	2.19
Access to continuing education	.23	1.11
Income potential	.21	1.47
Climate or geographical features	− .18	1.55
Good education for children	.17	.77
Clinical support facilities	.17	1.07
Social, welfare, home services	− .17	.09
Opportunity to join desirable partnership or group	− .17	1.58
Raised in similar community	− .10	.30
Influence of wife	.10	.30
Economy	.06	.04
Regular contact with other physicians	.00	.00

*Positive sign indicates association with urban practice location

the Panhandle and other rural areas achieve and maintain good health care with a minimum of direct governmental intervention.

Postscript

Certain changes have occurred in the Panhandle since the 1976 writing of this article. The most outstanding change has taken place in the counties without a physician. In 1976 there were six, now there are only two. This change has occurred primarily for two reasons—a greater influx of foreign medical graduates, and the effective implementation of the Texas Tech Regional Academic Center at Amarillo.

In view of the suggestions I have made to solve our regional physician shortage, it now appears possible to solve that problem since the Regional Academic Center helps overcome many of the disadvantages of rural location. The center increases technical assistance and educational opportunities, exposes housestaff to rural health care by maintaining rural preceptorships among students and residents, and retains a large percentage of its residency graduates within the Panhandle area.

13. Time of location decision.

Time	Percent
Before medical school	14.2
During medical school	10.6
During internship, residency, or other house staff training	45.8
During military service	22.0
Other	7.4
Total	100

14. Percent of Panhandle physicians as Texas graduates, by specialty.

General Practice	64
Radiology	60
Pediatrics	33
Obstetrics-Gynecology	33
Surgery	31
Internal Medicine	30
Ophthalmology-Otolaryngology	17
Pathology	0
Dermatology	0
Miscellaneous	100

Acknowledgement

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Few contributors recognize beforehand the demands of producing a monthly column that will consistently be of interest and value to the reader. Although a few regular columns appear, it has not been the policy to grant monthly pages to specific committees, councils, or groups.

The Scientific Publication Committee and the editors do, however, encourage committees, councils, and individuals to submit original material which they consider valuable to readers. Should regular publication in column form be deemed appropriate, the Committee and the editors will consider development of a column.

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Medical Newsmakers

Punam Myer, MD

John J. Kavanagh, MD

Margaret C. Davis

ROBERT EARL SLADE, MD, San Antonio, is the new director of the Waco-McLennan County Health Department. Dr Slade is a 22-year veteran of public health service.

The Texas Board of Mental Health and Mental Retardation has approved the appointment of JAMES A. ADKINS, Austin, as assistant commissioner of the Texas Department of Mental Health and Mental Retardation. Adkins is the former chief of the department's legal and claims division.

PUNAM MYER, MD, Austin, has been named director of the Crippled Children's Services Division of the Texas Department of Health.

The National Institute of Neurological and Communicative Disorders and Stroke has presented the research career development award to S. J. ENNA, PhD. Dr Enna is associate professor in the department of neurobiology and anatomy and the department of pharmacology at The University of Texas Medical School at Houston, and associate professor in the UT Graduate School of Biomedical Sciences. The grant will support Dr Enna's research of neurotransmitter gamma-aminobutyric acid.

NED WADE, JR, an attorney, and ROBERT H. PARK, general manager of the Josey Oil Co, both of Houston, have been appointed to the Coordinating Board, Texas College and University System, by Gov Dolph Briscoe. Briscoe also named as a new board member CHARLES C. BUTT, Corpus Christi, president of H. E. Butt Grocery Co. Reappointed to the Coordinating Board were NEWTON GRESHAM, Houston, MARSHALL FORMBY, Plainview, WAYNE E. THOMAS, Hereford, and M. HARVEY WEIL, Corpus Christi, all lawyers.

JOHN J. KAVANAGH, MD, deputy commissioner for mental health services, has been named acting commissioner of the Texas Department of Mental Health and Mental Retardation.

MARGARET C. DAVIS has been named director of communications for the Harris County Medical Society. Ms Davis has served as associate editor at The University of Texas Health Science Center at Houston, associate information coordinator at The UT M.D. Anderson Hospital and Tumor Institute, and assistant director of public information at Hermann Hospital. She is a member of the Houston Area Health Public Relations Society, the American Medical Writers Association, and the Council for the Advancement and Support of Education.

JULIUS C. ALLEN, MD, Houston, has been elected to a three-year term on the board of directors of the Alexander Graham Bell Association for the Deaf.

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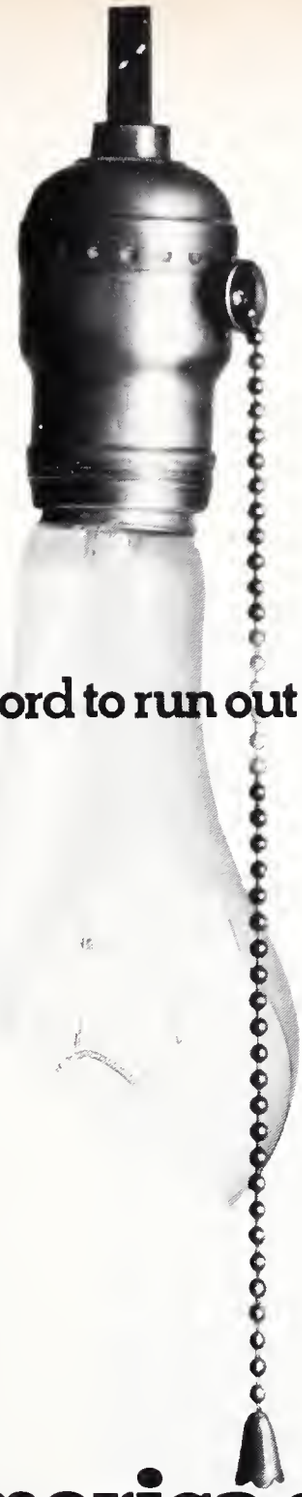

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John Smith, Jr, MD, talks about his year as TMA president

John M. Smith, Jr, MD, assumed the presidency of the Texas Medical Association in May 1978—a time when TMA was concluding the legislative battle for improved professional liability insurance legislation in Texas and continuing work to insure both medical care cost containment and quality medical care.

That wasn't his first step into leadership in organized medicine. For Dr Smith, those activities began in 1954 when he served as chairman of the Community Medical Services Committee of the Bexar County Medical Society. His committee found then that San Antonio was the most deficient city of its size in hospital bed facilities and the largest US city without a medical school. The findings of Dr Smith's committee led to joint efforts by the Bexar County Medical Society, the San Antonio Chamber of Commerce, and the South Texas Medical Foundation to complete correction of the bed shortage by 1972.

Dr Smith has held numerous other positions in organized medicine in his 25 years of medical service. The San Antonio family physician has served as a member of the TMA Board of Trustees, president of the Bexar County Medical Society, a member of the American Medical Association Political Action Committee Board of Trustees, and a member of the Board of Trustees of the Texas Medical Foundation, and has belonged to many other organizations.

Texas Medicine editors visited with Dr Smith to discuss his year as TMA president and his thoughts on his goals and accomplishments.

Texas Medicine: What things have you accomplished during your year as Texas Medical Association president?

Dr Smith: I have attempted to provide leadership on the basis of 22 years experience in the House of Delegates, on the Executive Board, and from a background in legislation. I do think councils and committees have been more active and productive. I think we are utilizing our committees better on a broad base of mission concept.

Texas Medicine: What have you learned about the Texas Medical Association during your year as president?

Dr Smith: I have become quite cynical due to the lack of support received by the TMA from many of the county medical societies and physicians over the state. The approximately 260 members of the House of Delegates and the 450 members of committees and councils, plus the TMA officers can only do a limited amount without support, and I mean undivided support, and true effort by each of the individual 14,000 doctors in this state. Until we get unified support from all of the doctors, regardless of specialty group, regardless of rural versus urban, we will not be able to produce what many of the physicians expect us to produce.

Texas Medicine: What has it been like to be number one?

Dr Smith: I really haven't considered myself to be number one. I like a team effort. I sincerely believe also in playing on the of-

fensive team. More points can be scored on offense than on defense.

Texas Medicine: What do you want Texas physicians to remember about John Smith's year as president of the Texas Medical Association?

Dr Smith: I have done my best to stimulate the TMA committees and councils to be more productive. I have requested that the staff suggest ideas and that they prepare materials for the busy physicians to determine policy. I'm happy that I have appointed medical students, residents and members of the TMA Auxiliary to committees of the TMA.

Texas Medicine: What are the critical issues that you think face American medicine today?

Dr Smith: The problems that we face today require immediate action, and these do not stand still for deliberate response to the challenges we face both on the state and federal levels. I think American medicine has got to be more responsible to the public. I feel that we do have the respect of the majority of American citizens, and I'm convinced that we are the most respected profession, but we do not have by ourselves the votes to stem the tide toward federalization of medicine. I do think we can slow it. We have got to be interested in local projects so that citizens will feel that medicine is interested in their problems. Perhaps this will influence politicians to be more reluctant to pass legislation harmful to the medical profession.

Texas Medicine: How can physicians best deal with increasing government controls?

Dr Smith: Physicians can best deal with increasing government controls by requiring patients to pay for their services and getting their reimbursement from patients —by allowing the patient to bill the government. The best way to deal with increasing government control is to elect proper people to office who will restrict regulatory legislation.

Texas Medicine: What are some of the recommendations you have for physicians in the area of cost containment?

Dr Smith: I think my record speaks for itself. I think that there are many areas in

John M. Smith, MD, TMA president, addresses the US Department of Health, Education, and Welfare's National Health Insurance Advisory Panel at hearings in Austin.

which we can stop duplication. I am resentful of the fact that at times we are the policemen for government policies. I think it would be easier if we were dealing with people who were paying their own way, rather than feeling that the impersonal federal government or the impersonal insurance carrier is paying the bill. There needs to be cooperation between family physicians and other primary care physicians in referring cases to specialists, and caution exercised in duplication of tests. I very definitely want to see insurance policies cover ambulatory and outpatient care.

Texas Medicine: Is there an answer to the problem of physician distribution?

Dr Smith: There is an answer, but it is not an easy one. I think that physicians in the rural areas in the future will be members of group practices in order to attract young physicians and their spouses and families to the smaller communities. There must be hospital and clinic facilities to practice modern medicine, and I would like to see group practice on a multispecialty basis with physicians having time for vacations with the families and to further their education. I do not believe that we are going to have single doctors in small communities doing solo practice. Group practice should afford a member of a group regular office hours, 20 to 30 miles removed from the base of operation, thereby serving a broad area. People in this area also would have the benefits of doctors with wide backgrounds of general and specialty training.

John M. Smith, MD, right, TMA president, participates in a panel discussion with Rep Bob Krueger, center, New Braunfels, and Merle W. Delmer, MD, San Antonio, during TMA's Winter Conference in January.

Texas Medicine: What advice would you give to young physicians who want to become active in organized medicine?

Dr Smith: I would advise young physicians to get active in medicine at an early age. That is why I have been interested in getting medical students and residents on TMA committees. I would urge them to participate in the decisions of medicine from the inside, rather than sitting on the outside or in the dressing rooms of hospitals and being critical of the leadership and policies of medicine. I realize that it is hard work—that it frequently takes them away from families, and many times is non-rewarding from a financial point of view. However, we must develop our leadership from within and we must be cognizant of the opinions of those following us.

Texas Medicine: Why was being president of TMA important to you and how has it affected your medical practice?

Dr Smith: I accepted willingly the challenge of being president of TMA because I have the heritage of my forebears in medicine and the privilege of knowing that two

of my sons will follow me in the medical field. I have served the TMA for 24 years. I have suffered loss of income each year the legislature met. I have missed only one Executive Board meeting in 24 years.

Texas Medicine: If you had it all to do over again, would you?

Dr Smith: Yes. It has been a pleasure to serve as TMA president this past year, I hope for further TMA growth, especially in the areas of socioeconomics and in seeking means of assisting doctors in their offices. I regret that in the 10 to 15 years of efforts to further health care to migrants and indigents, we have been incapable of developing a mechanism that can provide quality care at low administrative costs. I would like to see this accomplished under some organization of medicine, possibly a medical foundation, rather than non-profit corporation which is frequently operated inappropriately by people with little experience.

Texas Medicine: What are some of the things you plan to do now that your term is over?

Dr Smith: First of all, I plan to take a short vacation with my wife to Port Aransas. I would like to relax for a while and enjoy my wife and family. I am sure that I will continue to be involved in politics and legislation with my position as a member of the American Medical Association Political Action Committee Board of Trustees. I am also a member of the San Antonio Medical Foundation which has developed a 680-acre site for the medical center in the South Texas Medical Center area. This has corrected the stigma San Antonio had in 1954 as being the most deficient city in the United States with a population of between 250,000 and 500,000 with regard to hospital beds and the largest city without a medical school. These things have been corrected. There is room for the development of a specialty research center or centers and therapy centers. I fully expect I will have a part in this activity in the future. In addition, I have been actively engaged in health planning and I serve on the San Antonio Chamber of Commerce Legislative Committee and the Governmental Affairs Committee.

TMA president John M. Smith, MD, goes over notes before addressing a session of the Texas Medical Association.

Medicine in literature

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Bleeding in Obstetrics and Gynecology, audiorecording by American College of Obstetricians and Gynecologists, produced by Audio-Digest Foundation. Glendale, Calif, Audio-Digest, 1977.
What to do immediately, at hospital or bedside, in bleeding complications. Bedside evaluation of coagulation and platelet tests and their correlation with clinical status of the patient; management options; blood component therapy.

The Evaluation and Treatment of Sleep Disorders by the General Physician, motion picture by Kales A, Kales J. Hershey, Pa, Pennsylvania State University, Sleep Research and Treatment Center, 1976.
Normal sleep and sleep disorders in children and adults. Introduction to sleep stages and sleep research, enuresis, somnambulism, night terrors, narcolepsy, hypersomnia, sleep apnea, insomnia.

Immunosuppressive Agents in the Treatment of Nonmalignant Diseases, audiorecording

*Member of Texas Medical Association

by American College of Physicians, produced by Audio-Digest Foundation. Glendale, Calif, Audio-Digest, 1977.
Mechanisms of action of immunosuppressive agents, particularly corticosteroids and cytotoxic drugs, on immune response in inflammatory or immunologically mediated diseases. Includes drug indications and adverse effects.

Pediatric Neonatology, slide presentation by Houck PW. New York, Medcom, 1973.
Recognition of common and rare neonatal problems. Physical examination, radiography and laboratory testing in differential diagnosis of infectious, immunologic, and genetic diseases, and anomalies.

Practical Aspects of Office Allergy, slide presentation by Rapp D. Buffalo, NY, Communications in Learning, 1976.
Recognition of allergy sufferer, points in history that indicate etiology, methods of treatment with emphasis on removing cause.

Practical Points of Specific Allergic Problems, slide presentation by Rapp D. Buffalo, NY, Communications in Learning, 1976.
Specific aids to diagnosis and treatment of typical allergic problems, such as hay fever and asthma, and atypical problems, such as chronic secretory otitis, hyperactivity, enuresis, headaches, and fatigue.

Surgery to Improve Appearance: What the Plastic Surgeon Can and Cannot Do, slide presentation by Reading G. Buffalo, NY, Communications in Learning, 1976.
Reasons for performing plastic surgery to improve appearance; distinction between reconstructive and aesthetic plastic surgery. Illustrations of various procedures.

Until I Die, motion picture by Kubler-Ross E, produced and directed by Barey P, Callaci G, with cooperation of Center for Continuing Education, University of Chicago, Cook County Hospital, Evanston Hospital. Evanston, Ill, Video Nursing Inc; New York, American Journal of Nursing Co, Educational Services Division, 1970.
Dr Elizabeth Kubler-Ross' description of five stages through which terminally ill patients pass in accepting imminent death. Discussion of relationship between hospital staff and terminally ill patients, emphasizing honesty, discovery of staff's own reactions.

RECENTLY DECEASED MEMBERS OF THE TEXAS MEDICAL ASSOCIATION

L. B. BAKER
Houston, 1913-1977

C. J. I. EKMAN
Bastrop, 1899-1977

O. P. GRIFFIN
Fort Worth, 1913-1977

H. H. McCREIGHT
Winters, 1922-1977

W. H. MOORHEAD
Houston, 1914-1977

W. G. MORROW, JR
El Paso, 1918-1977

H. B. MOSS
Dallas, 1934-1977

A. A. NEWSOM, SR
Dallas, 1899-1977

D. Y. OLDHAM
Houston, 1910-1977

F. A. PRATHER
Cuero, 1898-1977

T. D. REEDY
Dallas, 1931-1977

H. STACKHOUSE, JR
Houston, 1907-1977

J. R. L. VAUGHAN
Longview, 1926-1977

R. R. VERRETT
Texas City, 1925-1977

J. L. WALKER
Houston, 1916-1977

IN MEMORIAM

The Memorial Library of the Texas Medical Association stands as a permanent memorial to physicians who have served their patients, their profession and the people of Texas so faithfully over the years.

The Library ranks as one of the finest in the nation. It is providing more than 10,000 reference requests, 3,500 tapes and cassettes, and 2,500 films each year to physicians, students, and to those seeking information related to medicine and health care. The resources of the Library include 60,000 volumes, 400 tapes, and 300 scientific and lay films; more than 1,300 professional journals are received monthly. Services are provided without charge.

Contributions to the Texas Medical Memorial Library Fund are invested in a permanent fund and are managed by the Board of Trustees of the Texas Medical Association. Dividends are used to purchase new books and to operate the Library.

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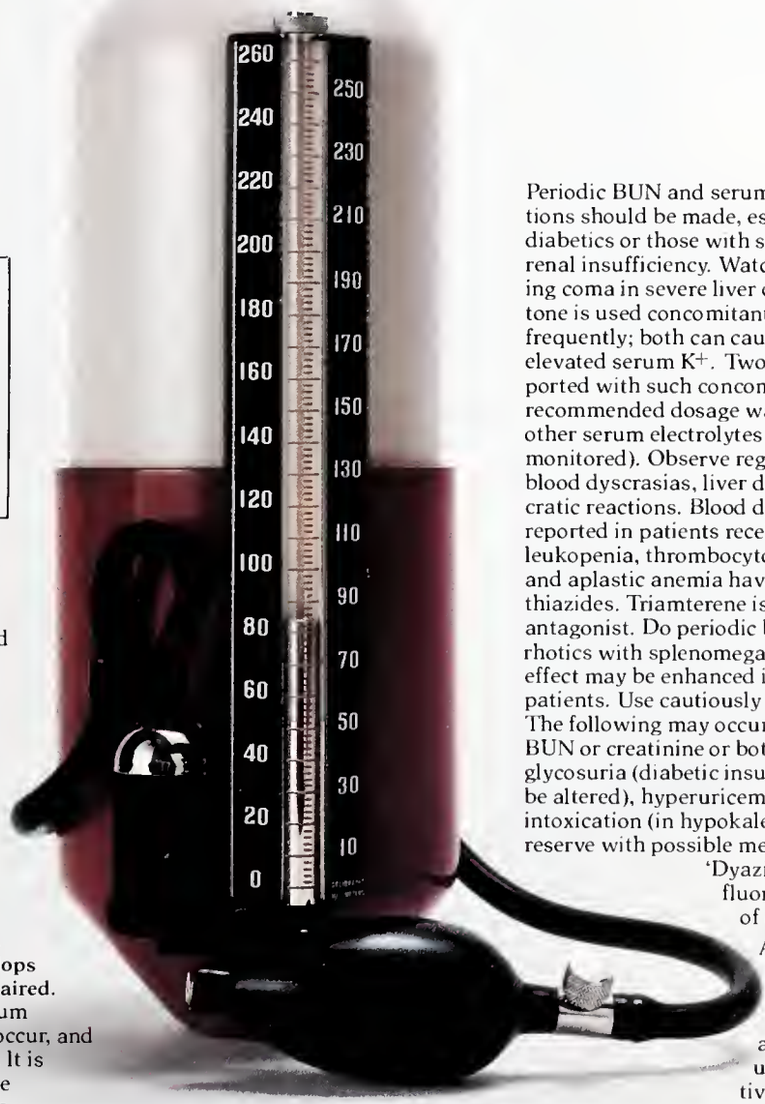

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* Warning
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: **Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired.** If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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Kaon® Elixir
(potassium gluconate)

Kaon® Tabs
(potassium gluconate)

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Kaon Tablets/Kaon Elixir

KAON® (potassium gluconate) TABLETS

Description: Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
Warning: There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
Precautions: In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

1954
1978

Time is the test of all things

tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

Adverse Reactions: Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

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Description: Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

Indications: See Kaon Tablets.

Precautions: See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

Adverse Reactions: See Kaon Tablets.

Overdosage: See Kaon Tablets.

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MEDICINE AND THE LAW

DEFINED BENEFIT KEOGH PLANS ALLOW CONTRIBUTIONS IN EXCESS OF $7,500

Self-employed physicians can now deduct more than $7,500 annually under a Keogh or HR 10 plan. The Employee Retirement Income Security Act of 1974 (ERISA) added provisions to the Internal Revenue Code which allow contributions by those who are self-employed to be made in an amount actuarially determined necessary to fund a defined or determinable benefit.[1]

The key word is defined benefit plan. Before, Keogh plans were defined contribution plans. Under the new type of Keogh plan, limitations are placed on the amount of the ultimate annual benefit that can be paid at retirement rather than on the amount of the yearly contribution to the plan.

Background

The Self-Employed Individuals Tax Retirement Act of 1962[2] permitted self-employed individuals to participate in qualified retirement plans. These plans allow a self-employed person to take a tax deduction for contributions made to the plan for the account of the self-employed person and his or her employees. These plans allow earnings on these contributions to accumulate in the plan, without being taxed, until distributions are made to participants or their beneficiaries.

Since 1962, Congress has made changes in the rules governing plans that cover self-employed persons, generally liberalizing those rules to mitigate the differences between retirement plans for the self-employed and those for corporate employees.

For example, for taxable years beginning before Jan 1, 1974, contributions for self-employed persons under Keogh plans were limited to the lesser of 10% of earned income[3] or $2,500. With the passage of ERISA, the limits were increased to the lesser of 15% of earned income or $7,500.

Under the law prior to ERISA, most self-employed plans were defined contribution plans because of the limitations on contributions already mentioned.

A defined contribution Keogh plan can be described as one which provides an individual account for each participant, with benefits payable to participants based solely on the amount contributed to the participant's account and any income, expenses, gains, and losses which may be allocated to the participant's account.

A defined benefit plan is a plan providing a definite formula by which a participant's ultimate retirement benefit will be measured. Contributions under such a plan are determined actuarially, using certain assumptions concerning mortality, interest, and other factors to determine how much must be contributed to insure sufficient funds to provide the plan's promised benefits.

The drafters of ERISA believed that defined benefit plans should be available to self-employed persons, and that they should, in effect, translate the 15% or $7,500 limitation on contributions into limitations on benefits.[4]

To do this, the code provides that the basic benefit[5] accruing each plan year for self-employed individuals under a defined benefit plan cannot exceed the amount of the participant's compensation which is covered under the plan times a percentage (the applicable percentage) which is based on the age of a participant when he enters the plan. The percentages are set forth in the code and are subject to amplification and modification through regulations.

Illustration

To illustrate the computations under a defined benefit Keogh plan, assume that a self-employed person enters the plan at

age 45, that the plan covers earned income of up to $50,000 per year,[6] and that his yearly earned income is in excess of $100,000. Under the table provided in the code, a person beginning participation at age 45 can contribute an amount sufficient to fund an annual benefit beginning at age 65 in an amount not to exceed 3.6% times $50,000, or $1,800 in retirement benefits accruing for each year the person is in the plan.

This means that if a 45 year old person contributes to the plan for 20 years and his earned income remains at least $50,000 annually, at age 65 he will receive an annual benefit of $36,000.

Contributions actuarially determined necessary over the 20 year period to fund that benefit would be deductible. A relatively conservative estimate, based on these facts, of the yearly contribution on behalf of the self-employed person and the corresponding deduction would be around $12,000.[7]

Under the facts assumed in the example, retirement benefits for the employees of the self-employed person who participate in the plan would have to accrue each year at the same rate, at an applicable percentage of 3.6% times the employee's compensation for the year up to $50,000.

The reason for this is that the code prohibits discrimination in contributions or benefits in favor of self-employed persons under a qualified retirement plan.[8]

If the self-employed person's earned income is in excess of $50,000 and the goal is to maximize his or her benefits under the plan while minimizing the cost of covering employees, the plan can be designed to accomplish that goal.

If, under the example, the self-employed person earns income of $100,000 or more for the 20 year period (which is twice the amount covered under the assumed plan) and the plan provided that compensation up to $100,000 is covered (instead of $50,000),[9] the applicable percentage would be reduced to 1.8%, or one-half of the maximum applicable percentage if $50,000 of compensation is covered under the plan. This would reduce by one-half the benefits accrued to employees each year and thereby reduce the amount of contributions necessary to fund these benefits. The annual benefit at age 65 for the self-employed person would remain $36,000.

Although the amount of the contribution necessary to fund such benefits depends on the actuarial assumptions made, in many instances it would be substantially more than $7,500 maximum under a defined contribution Keogh plan for the self-employed person.

Conclusion

While the cost to the self-employed may and in many instances will be higher under this type of a plan than a defined contribution Keogh plan, the sheltering potential for the earned income of a self-employed person is much greater, and the benefits available at retirement approach those available through qualified plans established in a corporate or association form of practice.

Until the Treasury Department issues regulations clarifying certain aspects of the statute, there will be some uncertainty in connection with a defined benefit Keogh plan, particularly with respect to ancillary benefits and variations allowed under such plans. However, there is nothing to preclude establishing a defined benefit Keogh plan at this time.

Robert E. Morrison
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

References

[1]Internal Revenue Code of 1954, as amended (referred to herein as the code),

§§401(a)(18) and 401(j), effective for taxable years beginning after Dec 31, 1975.
[2]Public Law 87-792, commonly referred to as the Simpson-Keogh Bill or HR 10.
[3]Earned income and compensation are used interchangeably herein; however, for the self-employed person, earned income is a defined term in the code generally meaning net earnings from the personal services of such person. Code §§401(c)(2).
[4]House Report 93-774, reprinted at 1974-3 Cum Bull 355 (1974).
[5]Basic benefit is defined in the code at §401(j)(5) as a straight life annuity commencing at the later of age 65 or 5 years after a participant's current period of participation began with no ancillary benefits and assuming no employee contributions.
[6]§401(j)(2)(A) limits the amount of compensation covered under the plan to $50,000, assuming that the maximum percentage in the accompanying table is selected.
[7]This $12,000 figure is based on a telephone conversation with an actuary, and is only a rough estimate. It is based on the lump sum necessary to purchase a life annuity at age 65 for $36,000 per year (estimated at $420,000) assuming a 5% interest factor.
[8]Code §401(a)(4), Treasury Regulations §1.401-11(d)(1).
[9]The code as amended by ERISA provides that for Keogh plans, only the first $100,000 of compensation of the self-employed person can be taken into account. Code §401(a)(17).

Deaths

Dr Baker

Dr Ekman

L.B. Baker, MD

Lowell Beal Baker, MD, Houston, died March 11, 1977, at age 64.
Dr Baker, chief of Houston's Emergency Medical Services, practiced obstetrics and gynecology for 25 years.
A native of Chanute, Kan, Dr Baker was graduated from the University of Kansas and the University of Kansas School of Medicine. He interned at St John's Hospital, Tulsa, Okla, and held residency positions at John Sealy Hospital, Galveston, and St Joseph Hospital, Houston.
Dr Baker, a former secretary of the Harris County Medical Society, was a member of the American Medical Association and the Texas Association of Obstetricians and Gynecologists.
Surviving are Dr Baker's wife, Wilma Kemper Baker; daughters, Judith Singleton, Julie Chambers, Jerel Baker, and Joan Carter; two brothers, two sisters, and six grandchildren.

C.J. Ivan Ekman, MD

Carl Jonas Ivan Ekman, MD, 77, died May 12, 1977, in Temple.
Dr Ekman retired in 1966 after practicing in Houston 42 years. He was elected to honorary membership in Texas Medical Association the same year. He had lived in Bastrop, Tex, since his retirement.
The physician was born in Austin in 1899, and attended The University of Texas there. He received his MD from UT Medical Branch, Galveston, in 1924. He held internships in Houston at St Joseph and Jefferson Davis Hospitals. He also did postgraduate work at Tulane University.
Dr Ekman was a member of Harris County Medical Society and the American Medical Association.
Surviving are his daughters, Ellen Ellis, Lockhart, Tex, and Karen Mau, Rosenberg, Tex; two sisters, and three grandsons.

O.P. Griffin, MD

Otho Powell Griffin, MD, 64, a Fort Worth proctologist, died Nov 25, 1977.
A native of Gainesville, Tex, Dr Griffin attended The University of Texas at Austin and received his MD from Baylor University Medical School. He interned at Charity Hospital in Shreveport, La, (1939-1940) and held a residency at Temple University School of Medicine, Philadelphia (1941-1942). He completed his postgraduate study at the Veterans Administration Hospital in Dallas.
Professional memberships included Tarrant County Medical Society and the American Proctologic Society.
Survivors include Dr Griffin's sons, Thomas Lewis Griffin, Fort Worth; Curtice Rosser Griffin, Columbia, Mo; and Jeffrey Farrow Griffin, London; one sister and one grandchild.

H.H. McCreight, MD

Henry Hale McCreight, MD, died Dec 22, 1977. He had been a physician in Winters, Tex, since 1954.
A native of Anson, Tex, Dr McCreight received his BS degree from North Texas State University in 1948. He received his MD from The University of Texas Medical Branch at Galveston in 1951. His internship was at Santa Rosa General Hospital in San Antonio.
Dr McCreight was a member of the American Medical Association and the American Academy of Family Physicians and was president of the Runnels County Medical Society.

The physician is survived by his wife, Mary Carlisle McCreight, Winters; and son, Henry H. McCreight, Jr, Houston.

W.H. Moorhead, MD

William Hopkins Moorhead, MD, Houston, died June 15, 1977.
Dr Moorhead, 62, had practiced internal medicine in Houston for 31 years. He was born in Goldville, SC, and attended Duke and Tulane universities. He received his BS degree in 1935.
In 1938, he completed his MD at Tulane University School of Medicine. His internship was at Research Hospital, Kansas City, Mo, (1938-1939) and his residency was at the University of Pennsylvania Graduate School (1939-1940).
The physician practiced in San Antonio; Goldville, SC; and Camp Blanding, Fla, before moving to Houston in 1946.
Dr Moorhead's professional memberships included Bexar County Medical Society and the American Medical Association.
Surviving are Dr Moorhead's wife, Marjorie Moody Moorhead, Houston; daughter, Susan Amanda Moorhead, San Diego, Calif; sons, William Moody Moorhead and John Robert Moorhead, Houston; and sisters, Margaret Bolick, Clinton, SC; and Annette Henderson, Asheville, NC.

W.G. Morrow, Jr, MD

Walter Grady Morrow, Jr, MD, the first surgeon to perform corneal transplant surgery in El Paso, died Nov 15, 1977.
Dr Morrow, 59, had practiced in El Paso since 1950 and in 1954 he served as head of the medical division of the Community Chest drive (now United Way).
A native of Brady, Tex, Dr Morrow attended The University of Texas and received his medical degree from UT Medical Branch in 1942. He served as a flight surgeon in the Army from 1943 to 1945 in the United States and the Pacific Theatre. He received his ophthalmology training at Barnes Hospital, St Louis, and John Sealy Hospital, Galveston.
Dr Morrow was a member of the Texas Ophthalmological and Otolaryngological Societies, American Academy of Ophthalmology and Otolaryngology, El Paso County Medical Society, and the American Medical Association.
Survivors include his wife, Mary Jean Lees Morrow, El Paso; sons, Walter Grady Morrow III, Los Angeles, and Dr Robert D. Morrow and James L. Morrow, El Paso; mother, Gertrude Morrow, Brady; one brother and one grandchild.

Dr Moorhead

Dr Morrow

H.B. Moss, MD

Horace Bailey Moss, MD, a Dallas dermatologist, died Oct 8, 1977. He was 43.
A native of Dallas, Dr Moss graduated from Southern Methodist University in 1955 and received his medical degree from UT Southwestern Medical School in 1960. Before moving to Dallas in 1968, Dr Moss practiced in Tyler. In addition to his practice, Dr Moss was the physician for Camp Sweeney for Diabetic Children.
His professional memberships included the American Medical Association and Dallas County Medical Society.
Survivors, all of Dallas, include his wife, Nancy Hamilton Moss; sons, Stephen Moss and David Moss; and parents, Mr and Mrs Horace E. Moss.

A.A. Newsom, Sr, MD

Asa Armstrong Newsom, Sr, MD, 77, died March 29, 1977, in Dallas.
Dr Newsom, a private practitioner and professor, had lived in Dallas more than 50 years. He was a clinical professor emeritus at The University of Texas Southwestern

Dr Oldham

Dr Prather

Medical School, and had taught obstetrics-gynecology at Baylor College of Medicine before the institution was moved to Houston.
The physician helped found the Dallas-Fort Worth Obstetric and Gynecologic Society in 1947 and served as its first president.
A native of Lucas, Tex, Dr Newsom attended Burleson College, Greenville, Tex, and Baylor University, Waco, Tex, before entering Baylor College of Medicine. He completed his MD degree in 1923, and served both his internship and residency at Baylor Hospital.
Dr Newsom was an honorary member of Texas Medical Association and Dallas County Medical Society. His other professional memberships included the American Medical Association, Texas Association of Obstetricians and Gynecologists, Southern Medical Association, and Dallas Southern Clinical Society.
Surviving Dr Newsom are his wife, Billie Greene Newsom, and son, Asa A. Newsom, Jr, MD, Dallas.

D.Y. Oldham, MD

Dudley Yoakum Oldham, MD, died Sept 16, 1977, in Houston. He was 66.
Dr Oldham practiced in Houston from 1940 until his retirement in 1972.
A native of Lemonville, Tex, Dr Oldham attended South Park Junior College in Beaumont and Baylor University. He was graduated from The University of Texas Medical Branch at Galveston in 1938. His internship was at Hermann Hospital in Houston.
Dr Oldham's professional memberships included Harris County Medical Society, American Geriatrics Society, Texas Society of Obstetricians and Gynecologists, International College of Surgeons, and American Medical Association.
Surviving Dr Oldham are his wife, Cornelia Oldham, and daughter, Molly Oldham.

F.A. Prather, MD

Frank Ault Prather, an honorary member of Texas Medical Association, died Oct 24, 1977, in Cuero, Tex. He was 79.
Dr Prather had been a resident of Cuero since 1944 and was associated with the Bohman Clinic there from 1947 until his retirement in 1975.
A native of Manchester, Ohio, Dr Prather attended Tulane University and was graduated from Baylor College of Medicine in 1930. His internship was at Robert B. Green Memorial Hospital in San Antonio.
Dr Prather, a veteran of World Wars I and II, was a member of the DeWitt-Lavaca County Medical Society, American Medical Association, and American Academy of Family Physicians.
Surviving are Dr Prather's wife, Effie Rowland Prather, Cuero; son, Robert M. Prather, Taft, Tex; daughters, Mrs Charles Cook, Luling, La, and Mrs Woodie Zachry, Jr, Troy, Mich; one sister, and seven grandchildren.

T.D. Reedy, MD

Timothy Daniel Reedy, MD, a Dallas internist, died Nov 9, 1977. He was 46.
A native of Muskogee, Okla, Dr Reedy received his undergraduate degree from Texas Christian University in 1955. Following graduation from The University of Texas Southwestern Medical School in 1959, he held an internship and internal medicine residency at Parkland Memorial Hospital in Dallas. He completed postgraduate studies in cardiology at Parkland before opening his Oak Cliff practice in 1963.
The physician was a member of the Dallas County Medical Society, American Medical Association, American Heart Association, and Dallas Heart Association.
He is survived by his wife, Patsy Forbes Reedy, Dallas; daughters, Kimberly Ann Reedy and Lindy Reedy, both of Dallas; and brother, Thomas M. Reedy, MD, Alexandria, La.

Howard Stackhouse, Jr, MD

Howard Stackhouse, Jr, MD, a retired industrial surgeon from Houston, died June 24, 1977.
Dr Stackhouse, 69, was awarded the bronze star during World War II for operating on severely wounded Marines under dangerous conditions while he was stationed on Iwo Jima.

A native of Palmyra, NJ, the physician was a graduate of the University of Maryland and the University of Maryland School of Medicine. After receiving his MD in 1933, Dr Stackhouse became an intern at the University of Maryland Hospital, Baltimore, and later was a resident at the same hospital. He practiced in New York before moving to Texas.
Dr Stackhouse was a member of the American Medical Association and Harris County Medical Society.
Survivors include his sons, Harry Moyer Stackhouse, Amarillo; Howard Stackhouse III, LaGrange, Tex; and Michael Stackhouse, Houston; daughter, Muriel Clark, Houston; 17 grandchildren, and one great-grandchild.

John R.L. Vaughan, MD

John Robert Lloyd Vaughan, MD, 51, died Nov 8, 1977.
A resident of Longview, Tex, since 1957, Dr Vaughan was a former chief of staff at Good Shepherd Hospital there.
He was a native of Shreveport, La, and attended The University of Texas at Austin. In 1952, he received his MD from UT Medical Branch at Galveston. His internship was at the University of Alabama Hospitals and Clinics in Birmingham. In 1953, he returned to Galveston for residencies in pediatrics and internal medicine at UT Medical Branch.
Dr Vaughan was past president of the Gregg County Medical Society and a member of the American Heart Association and American College of Physicians.
Surviving are the physician's wife, Betty Hill Vaughan, Longview; daughter, Gayle Vaughan, Lubbock; sons, John R.L. Vaughan, Jr, and Scott Vaughan, Dallas, and Gary Vaughan, Austin; and one sister.

R.R. Verrett, MD

Richard Raymond Verrett, MD, Texas City, died June 17, 1977. He was 51.
Dr Verrett, a past president of the Mainland Chapter of the American Heart Association, had practiced in Texas City since 1950. He also had practiced in Wichita Falls and Amarillo.
The physician was born in Orange, Tex. He attended Lamar Junior College, Beaumont, and The University of Texas, Austin. In 1948, he received his MD degree from UT Medical Branch, Galveston. His internship was at Wichita Falls (Tex) Clinic.
Dr Verrett was a member of the American Medical Association and Galveston County Medical Society.
Survivors include his mother, Lucia Verrett, Port Arthur; son, David Verrett, Texas City; daughters, Carol Verrett, Texas City; Linda Verrett, Dallas; and Shirley Verrett, Ypsilanti, Mich; three brothers, and three sisters.

Dr Vaughan

Dr Verrett

Dr Walker

J.L. Walker, MD

Jack Leland Walker, MD, a Houston physician and attorney, died May 1, 1977.
Dr Walker, 60, was born in Mart, Tex. He was a 1938 graduate of The University of Texas, Austin, and completed his MD at UT Medical Branch in 1942. His internship was at the US Naval Hospital, Corpus Christi, and his residency was at John Sealy Hospital, Galveston. Before moving to Houston, Dr Walker practiced in Cameron and Austin, Tex.
The physician was a past secretary of the Milam County Medical Society, former director of the Junior Chamber of Commerce, Cameron; and clinical assistant professor in the Department of Public Health, Baylor College of Medicine.
His professional memberships included Harris County Medical Society, Association of American Physicians and Surgeons, American Association for Clinical Immunology and Allergy, and the American Medical Association.
Dr Walker, the second physician in Texas to receive the degree of Doctor of Jurisprudence, also was a member of the State Bar of Texas and past president of the Texas Medical-Legal Society.
Surviving Dr Walker are his wife, Lora Ruth Lindholm Walker, Houston; daughters, Margot Terry Heard, Weslaco, Tex; and Matilda Elizabeth Walker, Anne Terry Berry, and Mary Lynn Terry de Rouen, Houston; son, William Leland Walker, Houston; and six grandchildren.

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Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

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Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

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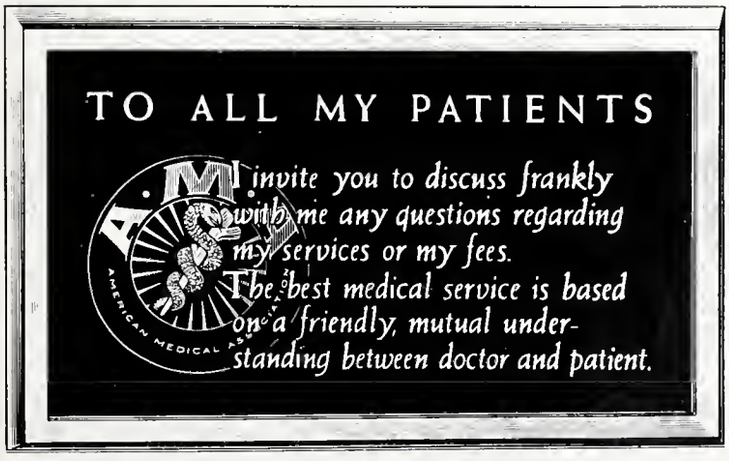

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UNUSUAL PRIVATE PRACTICE OPPORTUNITIES NOW AVAILABLE in general practice. Opportunities available in a 158-bed proprietary hospital, physician owned and operated. Medical success in your practice guaranteed by cash of $6,500 per month for a period of six months. Free rent and other benefits also included. Pasadena, Texas, is a progressive city of 150,000 located as a suburb of Houston, Texas, near the Johnson Space Center. Community enjoys high per capita earnings, open staff policies, and unlimited medical opportunities. Applications will be restricted to aggressive and American-trained physicians only. For additional information, write or call Richard Fly, Administrator, Pasadena General Hospital, 1004 Seymour, Pasadena, Texas 77506. Phone 713 473-1771.

INTERNIST NEEDED—Certified or board qualified internist to do general internal medicine with eleven members of steadily growing, multispecialty practice. Clinic adjoins new, 77 bed, Hill Burton JCACH with recently expanded CCU/ICU to 8 units. Excellent climate, good fishing and hunting, new golf course and skeet range and close to metropolitan areas of Texas. Suggest salary at first with rapid advancement to director/owner in fully incorporated medical association. Send curriculum vitae. Please contact Van D. Goodall, M.D., Clifton Medical and Surgical Clinic Association, Clifton, Texas 76634. Telephone 817 675-8621 or home phone 675-3113.

CLASSIFIED AD RATES & DATA: Classified Advertising sells for $10.00 per issue for 50 words or less, payable in advance. Ad numbers can be substituted for formal addresses upon request at no extra cost. Name and address of ad number listings cannot be given out unless specific permission to do so has been given. The advertising office will not contact ad number holders except by mail. Copy deadline is the 5th of the month preceding publication. Send copy to Advertising Manager, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

FOURTH PHYSICIAN to join family practice group. Clinic integrated part of facility with 40 acute, 44 long term beds. Unique set-up, no buy in, no junior partner status, guarantee available. Fine small town 30 miles from Lubbock. You need to investigate this to really appreciate it. Contact Ray W. Freeman, M.D., Hugh H. Wilson, M.D., Gordon Russell, Hi-Plains Hospital, 203 West 4th Street, Hale Center, Texas 79041; 806 839-2471.

WANTED—GP FOR BUSY PRACTICE in Longview, Texas. 60,000 population. Salary according to experience. No night calls or deliveries; work hours strictly from 8 a.m. to 5 p.m. For information call Dr. Elafifi, 214-758-4416.

WANTED: INTERNIST OR GENERAL PRACTITIONER to associate with general practitioner. Own 4000 sq. ft. clinic building with laboratory and x-ray in operation 40 years. Will make attractive terms to well trained ambitious physician. Please reply to Ad-776, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

DALLAS AT LARGE—Flexible scheduling on regular or occasional basis at a variety of Dallas area emergency departments. $3,000-$4,000 per month, paid malpractice. Contact Texas Emergency Room Services, P.A., 3603 Hall Street, Suite 102, Dallas, Texas 75219, 214-522-5481, or 1-800-325-3982, ext. 220, toll free.

DALLAS EMERGENCY STAFF POSITION—Dallas, Texas. Teaching institution with 20,000 patients per year. Variety of trauma and acute medicine. Congenial atmosphere in recently remodeled 500-bed hospital. Available July 1, 1978. $45,000 minimum guarantee/fee-for-service with great growth potential. Contact Texas Emergency Room Services, P.A., 3603 Hall Street, Suite 102, Dallas, Texas 75219, 214-522-5481 or 1-800-325-3982, ext. 220, toll free.

TEXAS EMERGENCY DEPARTMENT DIRECTORSHIP—Small town atmosphere within 30 minutes of Dallas. 8,000 patient visits per year. Coordinate clinical and administrative services of emergency department. Participate in hospital policy-making committees. $46,000-$59,000 per year. Contact Texas Emergency Room Services, P.A., 3603 Hall Street, Suite 102, Dallas, Texas 75219, 214-522-5481 or toll free 1-800-325-3982, ext. 220.

INTERNIST—Pine hills of East Texas. Thriving city of 65,000. Extraordinary cultural and recreational activities. Medical center of North East Texas. Ten man group—four GP/FP, three IM, three surgeons. Please contact Robert Felix, Administrator, Medical & Surgical Clinic, P.O. Box 3026, Tyler, Texas 75701; phone 214-593-1721.

STAFF PHYSICIAN NEEDED FOR STATE HOSPITAL. Progressive 750 resident state institution. Eligibility for Texas license required. Salary is negotiable, 40 hour work week, paid vacation, sick leave, holidays, good retirement plan and free group insurance. Kerrville is known as a retirement center. Prefer mature physician over age 50. Please contact Luther W. Ross, M.D., Superintendent, Kerrville State Hospital, P.O. Box 1468, Kerrville, Texas 78028 or phone 512-896-2211. We are an equal opportunity employer.

EXPANDING GROUP NEEDS SPECIALISTS in cardiology, obstetrics, pediatrics, general and orthopedic surgery. Enjoy practicing medicine with our 25-man multispecialty group located in a friendly city of 100,000 people in north central Texas. Close to everything, but away from big city problems. If you want to know more about this long established group (1919) whose city has a booming economy, call collect Dr. David M. Pogue at 817-766-3551. Wichita Falls Clinic, 501 Midwestern Parkway East, Wichita Falls, Texas 76302.

EMERGENCY DEPARTMENT DIRECTOR WANTED—Longview, Texas, population 60,000. Two hour drive east of Dallas. Progressive community with beautiful wooded geography and nearby lakes. Need career ACEP MD with ER and administrative experience. Malpractice insurance supplied. Fee for service compensation $72,000 for 20 shifts/month. EHSA, 3600 Gaston, Se. 503, Dallas, Texas 75246; 214-823-6850.

PSYCHIATRIST NEEDED FOR STATE HOSPITAL. Progressive 750 resident state institution. Eligibility for Texas license required. Salary is negotiable, 40 hour work week, paid vacation, sick leave, holidays, good retirement plan, and free group insurance. Kerrville is known as a retirement center. Prefer mature individual over age 50. Please contact Luther W. Ross, M.D., Superintendent, Kerrville State Hospital, P.O. Box 1468, Kerrville, Texas 78028 or phone 512-896-2211. We are an equal opportunity employer.

ANESTHESIOLOGIST—Board eligible anesthesiologist for incorporated group practicing in large JCAH hospital located in prosperous rapidly growing area in Houston, Texas. Excellent salary and fringe benefits. Full associate status one year. American graduate or fluent English required. Reply: MDA Associates, Inc., P.O. Box 36679, Houston, Texas 77036; telephone 713-777-8422.

OB/GYN NEEDS ASSOCIATE for practice in Pasadena, Texas. Pasadena is a progressive city of 150,000 located in the suburb of Houston. A community which enjoys high per capita earnings. Applications will be restricted to American or Canadian trained physicians only. Call T. E. Swate, M.D., 1907 E. Southmore, Pasadena, Texas 77502; 713-477-0101.

PEDIATRIC OPPORTUNITY! A work hard and play hard life style is offered in a community of 100,000. Well established practice, 500 bed hospital, congenial medical community, three local colleges, symphony, art museum, hunting, fishing, where people choose to rear a family. Let us show you! Send resume to Ad-791, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PHYSICIAN WANTED FOR BUSY CENTRAL TEXAS GENERAL PRACTICE—Opportunity for association. Clinic adjacent to hospital. Charter member of American Academy of Family Practice. Could use FP, internist, or surgeon willing to do general practice. Good income. Close to Houston, Austin, San Antonio. Contact Willis G. Youens, Jr., M.D., 105 N. Grohmann, Weimar, Texas 78962; 713-725-8545.

STUDENT HEALTH SERVICE—New modern clinic, heart of East Texas recreational area, liberal time off, competitive salary and benefits. Contact Capt. A. C. Harris, USN (RET), Box 3058 SFA, Nacogdoches, Texas 75962; 713-569-4008.

FAMILY PRACTICE in small town in East Texas near fast growing Cedar Creek Lake, Dallas, and Tyler. Drawing area 18,000, two 100 bed hospitals within 20 miles. Deceased physician's office with financial arrangements available. For more information write R. H. Sharp, Trinidad, Texas 75163.

BOARD ELIGIBLE OR CERTIFIED FP to join two man group in growing town of 15,000, immediately adjacent to Wichita Falls. Salary and/or percentage arrangement negotiable. First year earnings should equal or exceed $50,000. Contact Jerry Adams, M.D., 501 E. Third, Burkburnett, Texas 76354; 817-569-3351.

EMERGENCY PHYSICIAN GROUP has full-time positions available in Austin, Texas. Large volume emergency department. Fee-for-service. Malpractice insurance provided. $30-$40/hour. Please contact John Stein, 897 McArthur Blvd., San Leandro, California 94577; 415-638-3979.

LARGE SOLO INDUSTRIAL AND FAMILY PRACTICE, ready to retire. Will sell or lease beautiful brick 16-room, 2-man clinic fully equipped. Large gross income. Excellent cultural and medical environment with good hospital and coverage available. Fine hunting and fishing. Prefer to sell. Will finance. Contact 2016 South High, Longview, Texas 75602; 214-753-5568 or 753-0224.

WANTED: ASSOCIATE IN GENERAL PRACTICE in Austin, Texas, with early take-over of practice. For additional information contact Ad-796, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78705.

PHYSICIANS WANTED—Progressive hospital in East Texas. Contact Paul Bennett, Administrator, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647. Telephone 214-845-2281.

BIG SPRING—PSYCHIATRIST, board certified or eligible. Salary $38,000 to $42,800. Texas license required. Building a better and more dynamic program in state hospital. Ideal family living town of 30,000, good schools, recreation, mild West Texas weather. Call or write Doug Cheney, Personnel Director, Big Spring State Hospital, P.O. Box 231, Big Spring, Texas 79720; 915-267-8216. An equal opportunity/affirmative action employer.

THE DEPARTMENT OF FAMILY PRACTICE, The University of Texas Health Science Center at San Antonio, is seeking a full-time faculty person to become the Deputy Director of its satellite program in the Rio Grande Valley. This program is established and accredited. The academic rank and salary are negotiable based on credentials and experience. Board certification and a special interest in internal medicine are desirable. Reply to: Herschel L. Douglas, M.D., Professor and Chairman, Department of Family Practice, The University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, Texas 78284. An equal employment/affirmative action employer.

SIXTH PHYSICIAN TO JOIN family practice group. Forty bed hospital-clinic. Excellent hours with rotating week-ends. No investment required. Unusually fine West Texas community near Lubbock. Financial guarantee. Please reply to Ad-802, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTITIONER TO JOIN three man association in East Texas. Adequate clinic space—two hospitals—no investment. Call or write Joe R. Danel, M.D., 555 South Jackson, Jacksonville, Texas 75766; 214-586-2278.

PHYSICIANS: You can find the perfect practice opportunity through Medenco Hospitals, Inc. A variety of settings from rural to metropolitan plus an attractive financial package are available with Medenco. Contact Physician Relations, Medenco Hospitals, Inc., P.O. Box 3448, Houston, Texas 77001; toll free in Texas 800-392-6467.

NEEDED SEMIRETIRED PHYSICIANS to work on board Mobile Vans for health card screening in Houston; no night duties. Please call Jamil T. Azzam, M.D., at 713-444-8906 and after 7 p.m. at 713-273-1017.

GENERAL/FAMILY PHYSICIAN WANTED to take over solo private practice in N.E. Texas town of 2,000. Clinic equipped with x-ray and lab facilities. New 65 bed hospital 10 miles away; referral center 35 miles away. Only MD in town. Call 214-628-2286 evenings or write Dr. H. Cheesman, Dekalb Clinic, 109 SW Johnson, Dekalb, Texas 75559.

ESTABLISHED PRACTICE OPPORTUNITIES for GP, FP, IM—coastal area and central Texas. Sunbelt Physician Placement Service, 5500 N. Braeswood, No. 177, Houston, Texas; 713-729-6068.

ARE YOU A GENERAL INTERNIST interested in semi-retirement? Will share my established practice which offers good income and half time off. Please reply to Ad-811, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

EXPANDING MEDICAL CLINIC has opportunities for internal medicine, family practice, pediatrics. Apply: Desmond McCann, M.D., El Paso Medical Clinic, 2616 North Oregon, El Paso, Texas 79902. Phone 915-532-5232.

Situations Wanted

PATHOLOGIST: 47 year old, board certified, AP, CP and OB-GYN. Experienced in clinical and laboratory medicine as well as laboratory management. Presently director of very busy 3-man lab with over 300,000 tests per year. Married, three children. Born and raised in southwest. Desire to return. Seeks laboratory directorship in progressive community hospital. Reply to Ad-775, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PEDIATRICIAN, 32 years old, board eligible, Texas license, desires position in a hospital or clinic or with a group practice in Houston, Texas and vicinity. Please reply to Ad-780, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL SURGEON, 30, completed residency from medical college program. Qualified Part I boards. Seeks solo or partnership practice opportunity in Texas. Available immediately. Please reply to Ad-782, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

MULTIDISCIPLINARY skills and leadership seeking opportunity in health services development and management, preventive medicine and health maintenance, internal medicine, environmental health, community development and design, energy conservation and alternative systems—or combination thereof. Location within 100 miles of Houston; limited traveling acceptable. M. Lawrence Heideman, Jr., M.D., 9109 Fondren, #216, Houston, Texas 77074.

BOARD ELIGIBLE GENERAL SURGEON, 30, good experience in trauma—vascular and general surgery. Seeking solo, association, partnership, group or clinic practice. Preferably in medium to large size university city in Texas. Available July 1978. Please reply to Ad-788, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

OTOLARYNGOLOGIST—35, board certified and well trained in all aspects of otorhinolaryngology. Head and neck, facial plastic reconstructive surgery and maxillofacial trauma. Seeks position in multispecialty clinic or partnership in community with population over 100,000. Available July 1978. Please reply to Ad-790, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

ANESTHESIOLOGIST: Board eligible, university hospital trained, seeks group practice. Experience in open heart, neurosurgery, ICU. Available July 1978. Please reply to Ad-753, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

THORACIC AND CARDIOVASCULAR SURGEON: Completing residency June 1978, University of Utah, LDS Hospital, Salt Lake City. Available July 1978 for associate, group or solo practice. Contact Saeed Esmaili, M.D., 914 Medical Plaza North, Salt Lake City, Utah 84112; 801-583-0511.

GENERAL SURGEON, Board certified, 35. Seeks solo, partnership or group type practice near metropolitan area or in moderate size town. Available summer of 1978. Presently fulfilling military obligation at teaching hospital. Please reply to Ad-793, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

ANESTHESIOLOGIST, 36 years old, FMG, FLEX, board eligible (passed part 1). 1½ years in private practice, seeks relocation. Reply with full particulars of location, type of practice, compensation and benefits. University trained. Please reply to Ad-794, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PEDIATRICIAN, board eligible, pediatric hematology-oncologist; 35, FMG, university trained. Seeks group, pediatric or multispecialty or solo practice. Available by July-August 1978. Please reply to Ad-789, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PATHOLOGIST—37, AP board certified and CP eligible. University trained. Desire a position in group or hospital based practice. Available after June. Please reply to Ad-800, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD ELIGIBLE OTOLARYNGOLOGIST, 38, available immediately. University trained in all aspects of otolaryngology. Willing to discuss solo, group or partnership arrangements. Prefer areas close to metropolitan areas but will consider any areas. C.V. and references on request. Please reply to Ad-799, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL SURGEON, 35, board certified, FMG, seeking solo practice or association with a group. Willing to do some GP work. Please reply to Ad-798, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PHYSICIAN AVAILABLE: 33, FMG, FLEX, finishing pathology residency in June 1978. Interested in salaried job, teaching, laboratory or as associate. Husband internist. Please reply to Ad-797, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

CLINICAL PSYCHOLOGIST, 37, SW Med School Ph.D., 1971. Experienced in individual and group psychotherapy. Psychological assessment, and consultation. Member APA, AGPS, six publications. Seeks association with physician, share office expense, mutual referrals. Please reply to Ad-801, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL-PERIPHERAL VASCULAR SURGEON—30, board certified, vascular fellowship. Available 7/78, group or solo practice. Extensive peripheral vascular experience. Please reply to Ad-803, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL SURGEON. University trained with wide range of experience. Passed Part I of ABS. Appearing for Part II in May. Passed FLEX, ECFMG. Presently in solo practice for past two years in Northeast. Like to move to warm Texas. Prefer metropolitan area. Please reply to Ad-804, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST/ENDOCRINOLOGIST: 35, fully trained, practicing subspecialty at USAF Medical Center. Desires hospital based or group practice in suburb of medium or large city. Prefer El Paso area or coast. Available November. C.V. on request. Robert A. Horvath, M.D., 1372 Walnut Bend Court, Fairborn, Ohio 45324.

ANESTHESIOLOGIST—Board certified, experienced and university trained, would like to relocate in the State of Texas. Available within 4-8 weeks notice. Texas licensed. Please reply to Ad-805, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

CANADIAN ORTHOPAEDIC SURGEON, 42 years old, US trained, board eligible. Wants to relocate in Texas. Would prefer solo practice or loose partnership. Please reply to Ad-806, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL PRACTITIONER—Mature. Stable. Currently practicing in Texas. Seeks relocation to West Texas or South Texas. Sunbelt Physician Placement Service, 5500 N. Braeswood, No. 177, Houston, Texas 77096; 713-729-6068.

DERMATOLOGIST—44 years old, board eligible. 15 years practice experience. Desires part time association or salaried position. Flexible, honest and hard working. Please reply to Ad-809, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST, age 28, FMG (training approved by British Medical Council), FLEX, residency in university affiliated hospital, board eligible. Wishing to join group, partnership or hospital based practice. Experienced in CCU, treadmill, and ECHO. Willing to do little primary care if necessary. Please reply to Ad-807, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

LOCUM TENENS DESIRED: Board eligible pediatrician. Contact Jimmy Justice, M.D., 4604 Rosedale, Austin, Texas 78756; or call 512-451-3350.

CLINICAL SOCIAL WORKER (MSW, ACSW) desires affiliation with group medical practice with opportunity to provide intensive counseling to patients experiencing social and emotional stress. Excellent training and experience in teaching hospital for family practice and surgery residents. Employment on fee-for-service basis. Excellent references. Norman Inglet, MSW, ACSW, 708 Martinique, Dallas, Texas 75223; 214-823-3126.

CARDIOLOGIST-INTERNIST, 34, FMG, fully USA trained, board eligible. Expertise: Echo, stress testing and all aspects of clinical cardiology. Available June 1978. Please reply to Ad-810, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD CERTIFIED RADIOLOGIST completing a two year residency in nuclear medicine. Experience in computer work and cardiovascular studies. Private practice preferred. Dr. Gerscovich, 7300 Lennox Avenue, #A-8, Van Nuys, California 91405; telephone 213-781-9241 (home) or 213-478-3711, ext. 3063/8 (hospital).

For Sale or For Rent

OFFICE SPACE IN DALLAS — Office suites still available one block from Baylor Hospital in new Medical Center Building, 3801 Gaston Avenue, Dallas, Texas. Pharmacy, laboratory in building. Generous allowance for office improvements. Planning and layout available without cost. Contact Joe Mistrot, (214) 328-2761, or write P.O. Box 18237, Dallas, Texas 75218.

CORPUS CHRISTI, TEXAS: FOR LEASE 1500 sq. ft. clinic space. 60% furnished. Prefer FP or compatible specialist. Willing to provide some financial backing to help right physician. Please submit curriculum vitae and desired financial arrangements: Eugene L. Brown, Jr., M.D., 5705 Gollihar, Corpus Christi, Texas 78412; 512 991-8211.

MEDICAL BUILDING in San Antonio for sale or lease. 2000 sq. ft. medical clinic in 7 year old building at 1827 Bandera Road. Suitable for all primary care physicians and possibly for two physicians at the same time. Leasing agreement at 30¢ per sq. ft., to include utilities and janitorial service. For information call Irwin Kurtz, M.D., 512 696-4233 or Pete Cantu, Realtor, 512 736-4296 or 512 695-8466.

PHYSICIANS' OFFICE SUITES available for lease at Medical Park Tower, the most prestigious, largest, professional medical office building in Austin. Conveniently located immediately adjacent to Seton Medical Center and near other medical facilities within the city. Contact Alan Guerin, Vantage Management Company, 512-454-3646, 1301 West 38th Street, Suite 206, Austin, Texas 78705.

FOR SALE OR RENT: One Brattle Fetal Monitor, will give a demonstration if desired. Call Paul L. Stuck, M.D., 817-562-6505.

FOR SALE: Grass EEG, 1970 Model 6B. 8 channel, Int. Sys. $2500. Dr. J. E. Skogland, 1326 Medical Arts Building, Houston, Texas 77002; 713-225-5473.

CLINIC SPACE AVAILABLE for a physician in family practice, in a modern medical clinic. Excellent conditions. For information write Medical Clinic, P.O. Box 28253, San Antonio, Texas 78228.

PRACTICE FOR SALE: Internal medicine practice located in beautiful East Texas. Gross of $170,000 with 60% net. Price $75,000 including receivables. Professional Practice Services, P.O. Box 36817, Houston, Texas 77036; 713-771-5011.

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AUSTIN. Ground floor, principal thoroughfare near University, Capitol and TMA, available August 1. 3,200 square feet, also available in suites of 2,300 and 900. Ample off-street parking. Presently occupied by ophthalmologists. Write M.B. Findlay, Box 1804, Austin, 78767 or call 512-478-9379.

VALLEY IRRIGATED AND DRYLAND, SOUTHWEST OKLAHOMA: Ranch for sale by owner. 640 acres, valley irrigated land, 15 miles southwest of Lawton, Oklahoma. Five graineries, large shed, feeding pen, six room modern house. $750,000. 320 acres dryland, four ponds, one full of bass, two full of channel cat. Two inch steel pipe stock pens and shed, two outbuildings, two bedroom modern house, central air and heat, one extra bedroom in small house. Fourteen miles east and three north of Frederick, Oklahoma or 20 miles southwest of Lawton, Oklahoma or 40 miles northwest of Wichita Falls, Texas. Call 405-235-6461 or 525-2008.

Miscellaneous

ASPEN MUSHROOM CONFERENCE. Identification of edible, poisonous, and hallucinogenic mushrooms. Treatment of mushroom poisoning. Microscopy. Novice and advanced courses. AMA category I. August 13-18, 1978. Wildwood Inn, Snowmass-at-Aspen, Colorado. Contact Beth Israel Hospital, 1601 Lowell Blvd., Denver, Colorado 80204. 303-825-2190, ext. 359.

ABORTION ALTERNATIVES! Licensed maternity service offers residential and non-residential program with counseling and medical plan for the expectant mother who is planning adoption for her baby. Costs adjusted to ability to pay. MARYWOOD, 510 West 26th Street, Austin, Texas 78705. Phone 512-472-9251. (Formerly HOME OF THE HOLY INFANCY)

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Identification of edible, poisonous, and hallucinogenic mushrooms. Treatment of mushroom poisoning. Microscopy. Novice and Advanced courses. AMA category I. August 13-18, 1978. Wildwood Inn, Snowmass-at-Aspen, Colorado. Contact Beth Israel Hospital, 1601 Lowell Blvd., Denver, Colorado 80204. 303-825-2190 ext 359.

Program Available for Medical Audiences

Texas Rehabilitation Commission has a slide/tape presentation for physicians that explains how disability is determined for rehabilitation services.

Your county medical society, specialty society, hospital staff, or other physician group can arrange to have this program presented by someone who can discuss this aspect of disability determination.

For complete information, write John F. Wright, Professional Relations Supervisor, Disability Determination Division, TRC, P. O. Box 2913, Austin, TX 78769, or telephone, toll-free, 1-800-252-9680, extension 350.

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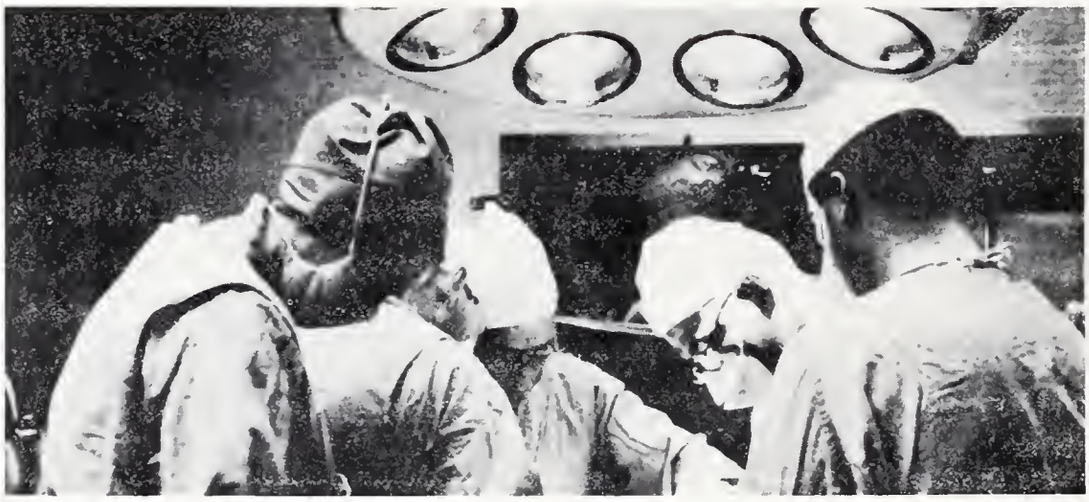

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Editorials

TMA HELPS PHYSICIANS OBTAIN APPROPRIATE PAYMENT FOR SERVICES

One of the responsibilities of the Texas Medical Association is to provide effective representation for physicians. Doctors need our support at the state level in their relationships with government, fiscal intermediaries, and third parties.

More comments and complaints are received about Medicare and Medicaid than any other programs. These communications reflect that doctors have been discouraged by low fees, by problems relating to reimbursement, by mountains of paperwork, and the hassle of dealing with government. During the past year, the Association interceded for physicians on some 78 issues and disputes.

The Texas Medical Association constantly is striving to reduce paperwork in the doctor's office. There has been some progress. To cite one example, the Council on Tax-Financed Health Care Programs continues to push for more universal usage and acceptance of the Uniform Claim Form. The US Department of Health, Education, and Welfare, the fiscal intermediaries for Medicare and Medicaid, Blue Cross-Blue Shield, and most all insurance companies have agreed to accept a Uniform Claim Form.

The state society continues to advocate the use of Current Procedural Terminology (CPT). CPT-4 is an efficient, accurate reporting system which takes advantage of the economies of computer technology. It will enable the physician to secure more appropriate payment for services which he has rendered. These codes now are accepted by most insurance companies. Regrettably, HEW still has not authorized the use of CPT in submitting claims under Medicare. Another proposal has been submitted to HEW. In the private sector, Association officers secured an important breakthrough just recently. Blue Shield has agreed to accept a modified CPT in its private business.

Another top priority was achieved this past November. The State Department of Human Resources has increased physician reimbursement under Medicaid to the level of 100% of reasonable charge profiles under Medicare. Medicaid payments previously had been pegged at 95% of Medicare.

The Association has been successful, too, in securing the updating of fee profiles under Medicare and Medicaid. As a result, Medicare has increased its prevailing charge by 6% over a year ago, and up to 35% over 1971 levels. Granted, reimbursement under these government programs still is modest, but these gains are steps in the right direction. The fact remains that Texas physicians receive higher levels of payment under Medicaid than doctors in most other states.

One of our president's personal objectives is to secure more adequate reimbursement for physicians in rural areas and in small communities. At present, there are varying levels of reimbursement for physicians in 33 geographical areas of Texas. There is a realistic probability that progress will be made this year in securing more ample payment for doctors in rural areas.

We can offer these suggestions for assisting physicians in securing appropriate payment for professional services which have been rendered:

1. The Texas Medical Association strongly encourages physicians to bill patients directly. This is preferable to accepting assignments, when it is practical and legally possible. There are many advantages of direct billing. The physician has a

choice of billing directly or accepting an assignment in most all programs except Medicaid.

2. When submitting claims, provide information on the condition of the patient or give the code for diagnosis. In addition, use the appropriate procedural code to report the services which have been rendered. Request a copy of the Blue Shield code. Review the codes and know what services or procedures they represent. Keep in mind that the codes are for the typical procedure. When unusual, complicating circumstances arise, they should be documented fully on the claim form. For these efforts, the physician usually will receive additional payment.

3. When accepting an assignment, bill the fiscal intermediary the fee which is ordinarily charged for all patients. This is preferable to billing for a lesser amount which the physician believes represents the maximum which will be paid. By doing so, the physician's profile will reflect his or her usual charge, rather than the amount allowed by the fiscal intermediary.

4. On assigned claims, the physician has the right to bill the patient directly for some charges. The doctor can bill the patient for those services not covered by Medicare and Medicaid. The physician also may bill the patient for the 20% coinsurance and for deductible provisions which are not reimbursed by Medicare.

5. Request a copy of the fee profiles for Blue Shield and Medicare. (Medicaid uses the same profiles as Medicare.) They will provide information on prevailing fees for services rendered by doctors in the same field of practice who are located in their geographical areas.

6. The physician should review his or her own customary charges for various procedures and services twice a year. It will be helpful to compare them with Blue Shield and Medicare profiles.

C. Lincoln Williston, Austin, Executive Director, Texas Medical Association.

Jun78 TexasMedicine

Anaphylaxis

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Treating hemophilia at home

Computed cranial tomography

Incoming TMA president looks ahead at Texas medicine

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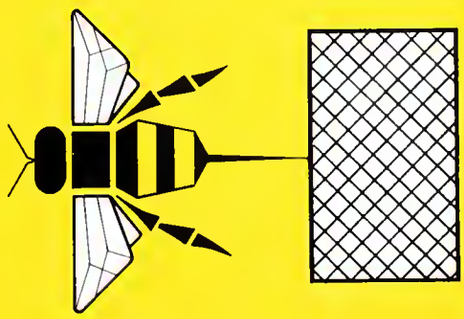

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Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazc.e per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Please see following page.

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the Bactrim™ 3-system counterattack

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Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

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Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introita colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

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On The Cover

Individuals are sensitized by repeated exposure to a specific antigen—drugs, foods, or stinging insects—and, upon reexposure, systemic symptoms can develop within seconds or minutes. The severity of the symptoms varies, but fatal shock can occur. Susceptible persons should carry injectable adrenalin and antihistamine tablets at all times. See article, page 37.

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Brief Summary of Prescribing Information
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Capsules and Oral Solution
For complete information, consult Official Package Circular. (12) TEGOPEN 9/11/75

Indications: Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

Important Note: When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

Contraindications: A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

Warning: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

Precautions: The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

Adverse Reactions: Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

Usual Dosage: Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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- 10 times more active against strep than staph.

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‡Maximum absorption occurs when Tegopen is taken on an empty stomach, preferably 1-2 hrs. before meals.

Please see brief summary for prescribing information.

News in brief

Clinical laboratory billing Texas Attorney General John Hill has issued an opinion answering questions regarding the clinical laboratory billing law passed by the 65th Texas Legislature. The law requires physicians and other professionals who bill patients for tests performed by laboratories outside their offices to provide patients with the name of the laboratory and the amount paid for the tests . . . 7

Cost awareness "Giving physicians in training a greater sense of cost awareness can play a major role in restraining future medical care costs," James H. Sammons, MD, AMA executive vice president, said at a meeting of the National Steering Committee of the Voluntary Cost Containment Program. The meeting focused on the role of physicians in containing health care costs and how to assist the public in becoming more informed about health costs and health care choices . . . 8

Harris poll A majority of the American public believes the voluntary effort to control hospital costs could be successful, according to a survey conducted by Louis Harris and Associates. Results of Harris national attitude survey show that 73% of the public think Congress should give voluntary controls a chance to work before putting on government controls . . . 10

Measles Texas' increase in reported measles cases in 1977 indicates that many of the so-called immune among Texas youth became infected, says the Texas Department of Health. Despite the widespread infections which conferred immunity last year, it is doubtful that the threat of measles has been greatly reduced, the health department warns. It is probable that large numbers of school-age children remain at risk . . . 12

AMA foundation The American Medical Association Education and Research Foundation has given more than $40,000 to Texas medical schools. The unrestricted grants are supported by contributions from Texas physicians, the TMA Auxiliary, and medical families . . . 22

News in detail

Scientific programs and special features included in TMA's 111th Annual Session

An outstanding scientific program with special features, special symposia on a wide range of medical topics, continental breakfast presentations, curbstone consultations, and sessions of the TMA House of Delegates were all part of TMA's 111th Annual Session in San Antonio May 10-14.

Scheduled speakers at the annual TMA meeting included Edward Teller, PhD, university professor emeritus, University of California, and John H. Budd, MD, president of the American Medical Association.

During the meeting Mylie Durham, MD, Houston, was installed as the new TMA president.

Pictures, details and more Annual Session stories will be included in the July issue of *Texas Medicine*.

Texas attorney general issues opinion on clinical laboratory billing law

Texas Attorney General John Hill has issued an opinion answering questions regarding the clinical laboratory billing law passed by the 65th Texas Legislature.

The law requires physicians and other professionals who bill patients for tests performed by laboratories outside their offices to provide patients with the name of the laboratory and the amount paid for the tests.

The bill states that no person licensed in Texas to practice medicine, dentistry, podiatry, veterinary medicine or chiropractic shall agree with any clinical, bioanalytical or hospital laboratory, wherever located, to make payment to such laboratory for individual tests, unless such person discloses on the bill or statement to the patient or third party payor the name and address of such laboratory and the net amount or amounts paid to or to be paid to such laboratory for such tests.

The law does not apply to a physician who has his own laboratory, nor does it apply to x-rays.

The law requires physicians and others who use outside laboratories to disclose on bills the name and address of the laboratory and the net amount paid for the test or test series.

The attorney general's opinion came in response to a series of questions from the Texas State Board of Medical Examiners.

Although a professional association or other organization of physicians need not comply with the legislation, the professional members of that organization are subject to its terms, the attorney general advised. The law applies to agreements with any laboratory organized as a separate entity.

He advised that the statute requires disclosure of a net dollar amount rather than a percentage of the total amount paid for laboratory services. Disclosure is not accomplished by the posting of a schedule of costs or notification to the patient that such information is available on request, but must be made known to the patient on the bill or statement.

The attorney general stated that the Texas State Board of Medical Examiners, in addition to its authority to deny an application for licenses for violation of the statute, is also empowered to revoke or suspend the license of any physician who is found to have violated that statute.

More details about the attorney general's opinion are included in Medicine and Law beginning on page 69.

Texas Medical Association will sponsor management workshops in June

The Texas Medical Association will sponsor a series of practice management workshops for established physicians June 6-9 in four Texas cities.

The workshops, "Financial Control of Your

Medical Practice," will be in Lubbock June 6, El Paso June 7, Houston June 8, and Dallas June 9.

Cost of the workshops conducted by Conomikes Associates is $62.50.

For more information contact Paul D. Gray, Department of Medical Service, Texas Medical Association, 1801 N Lamar Blvd, Austin, TX, 78701.

Dr Sammons urges cost awareness in physician training

"Giving physicians in training a greater sense of cost awareness can play a major role in restraining future medical care costs," James H. Sammons, MD, AMA executive vice president, said at a meeting of the National Steering Committee of the Voluntary Cost Containment Program.

"Education in the economics of health care for physicians, both in training and in practice, and the active involvement of the hospital medical staff in cost containment efforts are two major ways of aiding the fight against the high cost of health care," Dr Sammons said.

James H. Sammons, MD, AMA executive vice president, said, "Giving physicians in training a greater sense of cost awareness can play a major role in reducing future medical care costs."

The Voluntary Effort Steering Committee meeting focused on the role of physicians in containing health care costs and how to assist the public in becoming more informed about health costs and health care choices.

The need for more use of outpatient hospital and ambulatory surgery by doctors was also discussed. "The chief of staff in each hospital has to establish a climate of cost awareness," said Robert B. Hunter, MD, chairman of the AMA Board of Trustees and cochairman of the national steering committee. "Doctors have to ask: Is this hospitalization necessary? How many days should this patient be in the hospital? Are all diagnostic studies and therapeutic measures necessary?"

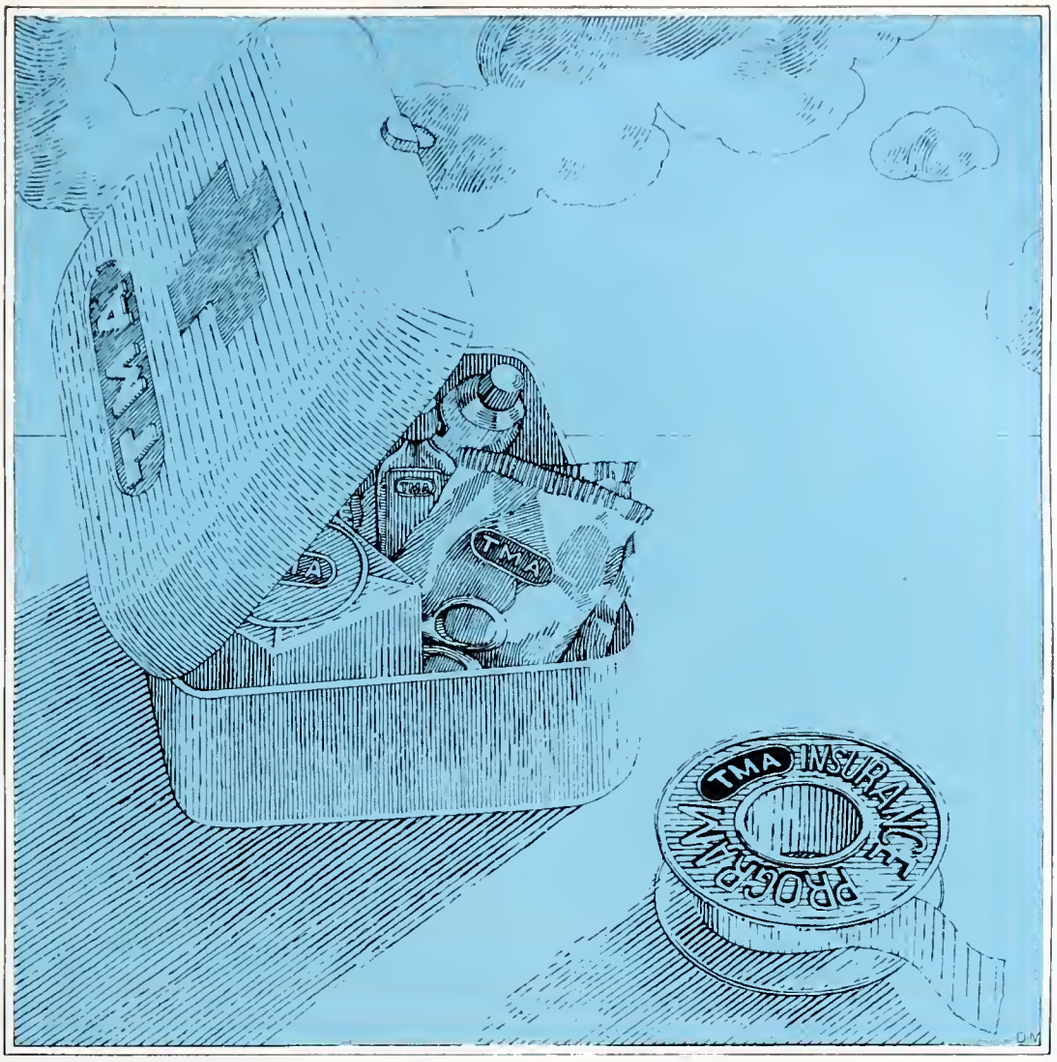
The committee is developing a plan to educate physicians to become more aware of the cost impact of patient services they order, show them how high quality care might be provided at the lowest possible cost, and motivate physicians to operate in the most cost-efficient mode.

Dr Hunter also commended the 13,000 member AMA Resident Physician Section for encouraging the development of local cost awareness programs through workshops and conferences and for the planned publication of a workbook outlining successful cost restraining activities in teaching hospitals.

The National Steering Committee was organized by the AMA, American Hospital Association, and the Federation of American Hospitals in response to a challenge by Rep Daniel Rostenkowski (D-Ill) last November calling for the private sector to take the initiative to voluntarily contain health care costs.

The major national goals of the committee include a reduction in the rate of increase in hospital costs of two percentage points a year over the next two years; no net increase in hospital beds in 1978; restraint of new hospital capital investment during the next two years; and tightened utilization review procedures by physicians.

Health care providers in all 50 states have agreed to participate in the national programs through state level committees. In Texas the Texas Medical Association, the Texas Hospital Association, the Texas Federation of Hospitals have formed the Texas Voluntary Hospital Cost Containment Panel.



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Harris poll shows public believes voluntary effort could work

A majority of the American public believes the voluntary effort to control hospital costs could be successful, according to a survey conducted by Louis Harris and Associates.

Results of the Harris national attitude survey, conducted for the Federation of American Hospitals, show that 73% of the public think Congress should give voluntary controls a chance to work before putting on government controls.

Only 15% of the public believes that Congress should not give the voluntary program a chance before voting on government control, according to the survey. Of 120 congressmen interviewed, a majority were opposed to mandatory cost controls, the study also reported.

"As much as people may have apprehensions over the way health care and hospitals are run these days, they also have deep worries over what would happen if the hand of government were increased," Harris said.

"While by 65 to 27%, it is true that a majority want more government involvement in the country's medical and health care system, by 60 to 30% it is also true that people believe that no matter how good the social program, if it is run by government, it will always get messed up," Harris said.

According to Harris, an era of greater public visibility for hospitals has arrived. Harris noted that the more Health, Education, and Welfare Secretary Joseph Califano and other government leaders have pressed for increased regulation of hospitals, the more public opinion has been "in precisely the opposite direction, dropping from 51% in 1974 to 49% last year and now down to 39%."

HEW sponsors meeting on health maintenance organizations

More than 1,000 businessmen and labor leaders attended an HEW sponsored meeting on health maintenance organizations in Washington in March.

The conference was organized by the Carter Administration to encourage development of HMOs and spur business and labor to establish them. Most of the speakers agreed that prepaid group care promises to become the medical service used by most Americans.

However, the speakers also agreed that it will be a hard task to sell the public on HMOs because by and large people are satisfied with the medical care they receive today. Still, they said, HMOs not only promise better quality care, but save money by reducing the incentive to hospitalization inherent in third party payment.

HEW secretary Joseph Califano said HMOs can reduce outpatient visits by 15% and hospitalization by 30 to 60%. "None of this is to say that doctors or hospital officials wear black hats; only that people and institutions respond predictably to built-in incentives and those incentives go the wrong way in the health economy."

"We intend this to be primarily the private sector's effort," Califano said, adding a blunt threat that "I need not tell you that this may be one of the last chances for American free enterprise to tackle the task."

Among those attending the session were representatives of 320 corporations and 350 unions.

Four HMOs in Texas have received state certification—Alamo Health Care Plan, San Antonio; Group Health of El Paso; Prudential Health Care Plan, Houston; and Texas Prepaid Health Plan, Houston. In addition to the four state certified plans, there are at least six additional plans in different stages of development. HMOs in Texas are regulated by the State Board of Health and by the State Board of Insurance.

Birth rate rise reported

The nation's birth rate rose last year for the first time since 1970, the National Center for Health Statistics said.

The center's data showed there were 3,313,000 births last year, or 15.3 births per 1,000 people. In 1976, the birth rate was 14.8 per 1,000. The rate most recently rose in 1970, when it increased to 18.4 births per 1,000 from 17.8 births the year before.

Also reported by the center was a 2% increase in the fertility rate—the number of births per 1,000 women of child-bearing age. The 1977 figure was 67.4, up from the previous year's 65.8 births.

February rise in physicians' fees kept pace with rest of economy

Physicians' fees increased at roughly the same rate as other prices in the economy during February, according to the US Dept of Labor's Consumer Price Index (CPI).

Physicians' fees rose by 0.7%, compared to an increase of 0.7% for the all items index of the CPI, and a 0.6% increase in the all services index.

The rate of increase in February for physicians' fees was less than that of all other prices in the general medical care category—hospital service charges increased 1.2%, semiprivate room charges increased 1.3%, and operating room charges increased 1.4%. Prescription drugs increased by 1% as did the whole medical care index.

The February rate of increase in physicians' fees was the same as it had been in January, while the all items index rose from 0.4% to 0.7%, and the all services index declined, from 0.7% to 0.6%.

FTC charges that Blue Shield plans are dominated by physicians

The Federal Trade Commission has charged that the nation's Blue Shield plans are dominated by physicians—"an arrangement that may reduce competition and raise prices artificially."

FTC chairman Michael Pertschuk told the Interstate and Foreign Commerce Committee's Subcommittee on Oversight and Investigations that ". . . it is difficult to see how the public interest can be served by such an apparent conflict of interest."

He said that an ongoing FTC investigation has found that most of the 72 Blue Shield plans are controlled by local medical societies.

Subcommittee member Albert Gore, Jr, (D-Tenn) said that many members of Blue Shield Boards of Directors ". . . also serve on the boards of banks and lending institutions holding Blue Shield funds. These persons also have a direct interest in seeing that these financial institutions make a profit. I believe this practice is unconscionable and is an abuse of the health plans' obligations to their customers," Gore said.

"It also poses an even more serious potential for abuse of the federal Medicare and Medicaid programs. Funding for these programs is distributed through Blue Shield organizations under contract with the federal government," the Tennessee representative said.

The FTC chairman said his agency was limited in the actions it could take against insurance firms and non-profit institutions. During the last session of Congress the proposal to give the FTC powers against non-profit institutions did not clear the House Commerce Committee.

Pertschuk acknowledged the need for physician input into the management of Blue Shield plans but said, ". . . there is the danger that even a small block of physicians could dominate a larger group of lay people. And in light of the fact that commercial health insurers are able to provide medical coverage without physician directors, it is not obvious that any physician participation in decision-making functions—as opposed to advisory functions—is necessary at all."

The FTC Chairman again made a strong pitch for expanded agency authority, saying that the FTC Act ". . . should be modified to give the Commission jurisdiction over all business entities, regardless of whether or not they are organized for profit."

Baylor receives funding for breathing treatment study

Baylor College of Medicine has received a five-year, $1.2 million grant, one of five awarded by the National Heart, Lung and Blood Institute, to determine the effectiveness of using intermittent positive pressure breathing machines in the treatment of persons with chronic obstructive lung disease.

Despite the controversy surrounding this type of treatment, the utilization of these machines has increased at an extraordinary rate since they were introduced nearly 30 years ago.

Each of the five US centers will follow 200 patients with chronic obstructive lung disease for three years.

An estimated 8.5 million Americans suffer from chronic obstructive lung disease and 2.5 million persons are limited in their activities because of it, making it one of the most common causes of disability.

Threat of measles remains, Texas health department says

Texas' eight-fold increase in reported measles cases in 1977 indicates that many of the so-called immune among Texas youth became infected, says the Texas Department of Health.

Despite the widespread infections which conferred immunity last year, it is doubtful that the threat of measles has been greatly reduced, the health department says. It is probable that large numbers of school-age children remain at risk.

The department recommends immunization for school children who have never received measles vaccine and who have not had measles illness as diagnosed by a physician. The department is moving to make this recommendation a firm rule for school admission.

Other bases recommended by the Texas Department of Health for receiving measles vaccine are having received measles vaccine prior to 12 months of age and having received the further attenuated vaccines along with immune serum globulin at the time of immunization. The current vaccines are designated as further attenuated to differentiate them from the Edmonston B strain vaccine. Persons who received the Edmonston B strain of attentuated measles vaccine along with the proper dose of immune serum globulin when 12 months or older need not be re-immunized. However, when the circumstances of prior immunization are not certain and there is any reason to believe that immunity is less than adequate, the child should be re-immunized.

Additional bases for receiving measles vaccine are having received immunization with killed measles vaccine instead of live vaccine, having received immunization with any live vaccine within three months of having received killed vaccine, and having received immune serum globulin either with or within three months prior to receiving the currently used further attenuated vaccine.

Texas A&M University names new dean of College of Medicine

Robert S. Stone, MD, who has served as dean of medicine at two major institutions and is a former director of the National Institutes of Health, is joining Texas A&M University as dean of its new College of Medicine.

Robert S. Stone, MD, is the new dean of the Texas A&M University College of Medicine.

Dr Stone's appointment is effective Aug 1, but he will begin serving immediately as a consultant for the state's newest medical school.

Dr Stone has served since 1975 as dean of medicine and vice president of the University of Oregon Health Sciences Center. He also serves as a member of the Liaison Committee on Medical Education.

He served as director of the National Institutes of Health in Bethesda, Md, in 1973-74 and was previously dean of medicine and vice president of health sciences at the University of New Mexico. Earlier in his career, he taught pathology at the University of California School of Medicine in Los Angeles.

The new dean succeeds James A. Knight, MD, who resigned last fall to return to New Orleans to accept a position at the Louisiana State University Medical Center. Elvin E. Smith, PhD, associate dean, has been serving as acting dean.

Dr Stone, who was reared in New York City, earned his AB degree at Brooklyn College in 1942 and MD at State University of New York College of Medicine in 1950 after World War II service as a Navy ensign.

His honors include selection in 1974 as a Distinguished Service Member of the Association of American Medical Colleges.

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New hospital and child health center dedicated at UT Galveston

The new John Sealy Hospital and Child Health Center at The University of Texas Medical Branch at Galveston was dedicated in April at special ceremonies on the medical branch campus.

The $32.5 million new John Sealy Hospital includes a 12-story patient bedtower and two-story north addition containing new surgical suites and support services. The $10 million Child Health Center is a combination patient bedtower and outpatient clinic which consolidates all the health care services relating to children.

The new hospital tower contains 528 beds in specialized intensive care units and single patient bedrooms.

Two primary considerations influenced the decision to build the new addition, said William C. Levin, MD, UTMB president.

"The pattern of delivery of medical care is changing because of the rapid development of new scientific and technological discoveries. Such new development must be rapidly applied to the care of sick patients.

"Secondly, new federally mandated guidelines have greatly influenced and will continue to influence the delivery of health care. These two broad and important developments made it essential that new hospital facilities be constructed," Dr Levin said.

The new John Sealy Hospital and Child Health Center at The University of Texas Medical Branch at Galveston includes a 12-story patient bedtower and a combination patient bedtower and outpatient clinic which consolidates all the health care services relating to children.

Cancer information service established at M.D. Anderson Hospital

A Cancer Information Dissemination and Analysis Center dealing with the diagnosis and therapy of malignant diseases has been established at the M.D. Anderson Hospital and Tumor Institute as part of the cancer information services of the International Cancer Research Data Bank.

The purpose of this center is to disseminate information relating to cancer diagnosis and therapy to all researchers studying malignant diseases.

In addition to the Cancer Information Dissemination and Analysis Center at M.D. Anderson, the International Cancer Research Data Bank has established a center devoted to carcinogenesis at the Stanford Research Institute, Stanford, Calif, and to cancer virology, immunology, and biology at the Franklin Institute, Philadelphia, Pa.

Selected abstracts for specific areas of research are grouped together and distributed as Cancergrams every month to researchers in the United States and abroad.

In addition to producing monthly Cancergrams, the Cancer Information Dissemination and Analysis Center also publishes Oncology Overviews. These are single documents that contain a comprehensive listing of abstracts on a high-interest topic, together with an editorial review.

Texas physicians wishing to utilize Cancer Information Dissemination and Analysis Center facilities or who have questions concerning Cancergrams or Oncology Overviews should contact Eugene M. McKelvey, MD, at (713) 792-3505.

Texas Department of Health is compiling statewide cancer information

The Cancer Information Service of the Texas Department of Health is compiling information about different cancers, their location in the body, and treatment procedures.

"By having all the information and drawing it from a large population, physicians can determine what modality of treatment is best for their individual patients," said Amelia Menchetti, with the Chronic Disease Divisions of the Texas Department of Health.

Texas has 189 hospitals with more than 100 beds, and 103 hospitals participate in the Cancer Information Service. Fifty more have indicated an interest in joining the system. The goal is to have all Texas hospitals with more than 100 beds participate. This expanded service would pick up more than 90% of the new cancer cases and establish a method for closer followup of patients who have been treated or who are receiving treatment.

Objectives of the Cancer Information Service are to support existing tumor registry programs in Texas with the health department's centralized computer capabilities, to encourage continuing care of cancer patients through systematic followup, and to provide accurate cancer data in each hospital as well as in each public health region.

Other goals are to provide cancer morbidity and survival information to be used in continuing education programs, and to provide an information base for more detailed epidemiological studies on the causes and treatment of cancer.

Cancer remains the second leading cause of death in Texas, according to the health department, but in the past decade significant improvements have been made in early cancer detection, diagnosis, and treatment.

JCAH reports analysis of validation survey findings

The Joint Commission on Accreditation of Hospitals has furnished the US Department of Health, Education, and Welfare with a limited analysis of the results of HEW's most recent round of validation surveys.

The analysis not only compares statistically the JCAH's survey findings with HEW's validation survey findings, but also provides insight into the apparent wide divergence between the two sets of findings, according to the JCAH.

For the limited analysis, a group of 30 hospitals believed to be reasonably representative of those reviewed under the validation survey program was selected. Comparisons were made between recommendations and comments ex-

pressed by the JCAH and the corresponding deficiencies determined to exist through validation surveys by HEW.

The correlation between the findings of JCAH and the deficiencies noted in validation surveys was found to be remarkably low. Statistics indicate that with respect to total compliance with standards, the JCAH cited deficiencies 183% as frequently as did HEW. In the area of Life Safety Code, however, the JCAH cited deficiencies only 68% as frequently as did HEW. JCAH and HEW cited the same deficiencies 17.3% of the time with respect to the Life Safety Code, and only 6.6% of the time with respect to total compliance with standards.

Such disparity between JCAH and validation survey findings is not so surprising in view of similar results evidenced in HEW's first two annual reports to Congress on the validation survey program, the JCAH says. As in the past, the JCAH has identified major areas of deviation between the JCAH survey process and its federally-sponsored counterpart.

John E. Affeldt, MD, JCAH president, in a letter accompanying the report to HEW, commented, "Any one of these deviations effectively minimizes the possibilities that validation will occur; taken together they virtually ensure that the validation survey will not replicate the JCAH accreditation process, and therefore will not validate surveys performed by the JCAH."

"The original interest of Congress in validating JCAH surveys was to provide accountability to the public for the expenditure of public funds," said John E. Affeldt, MD, JCAH president.

There are several areas of differences of the JCAH and HEW including differing requirements, scope of requirements, team composition, length of survey, and decision making.

Dr Affeldt noted that the original interest of Congress in validating JCAH surveys was to provide accountability to the public for the expenditure of public funds.

Though HEW surveys fail to validate JCAH surveys on an item-by-item basis, the JCAH continues to hold the position that the original intent of Congress is being served. The comparison of the outcomes of the two surveys rather than the processes supports the position that the JCAH accreditation survey does fairly and accurately measure the quality of care delivered in the nation's hospitals, according to the JCAH.

Correlating outcomes is easily accomplished. JCAH accreditation represents substantial compliance with the standards in the *Accreditation Manual for Hospitals*. Participation by a provider in the Medicare program represents substantial compliance with the Federal Conditions of Participation for Hospitals. Only once during the history of the validation program has an accredited hospital ever been terminated as a provider of hospital service for failure to comply substantially with the Conditions of Participation.

While continuing its cooperation with the federal government in evaluating the effectiveness of the validation survey program, the JCAH is committed to the voluntary approach of measuring quality of care and will continue to develop and apply standards for optimal achievable levels of care.

JCAH offers new monograph

A new monograph, *Medical Staff Bylaws,* is now available from the Joint Commission on Accreditation of Hospitals.

The publication is designed to assist a hospital in developing bylaws that are relevant to its particular situation and to stimulate consideration of all elements involved in developing sound medical staff bylaws.

The new monograph may be purchased from JCAH at $6 per copy. All orders must be accompanied by check or money order payable to JCAH, 875 N Michigan Ave, Chicago, Ill, 60611.

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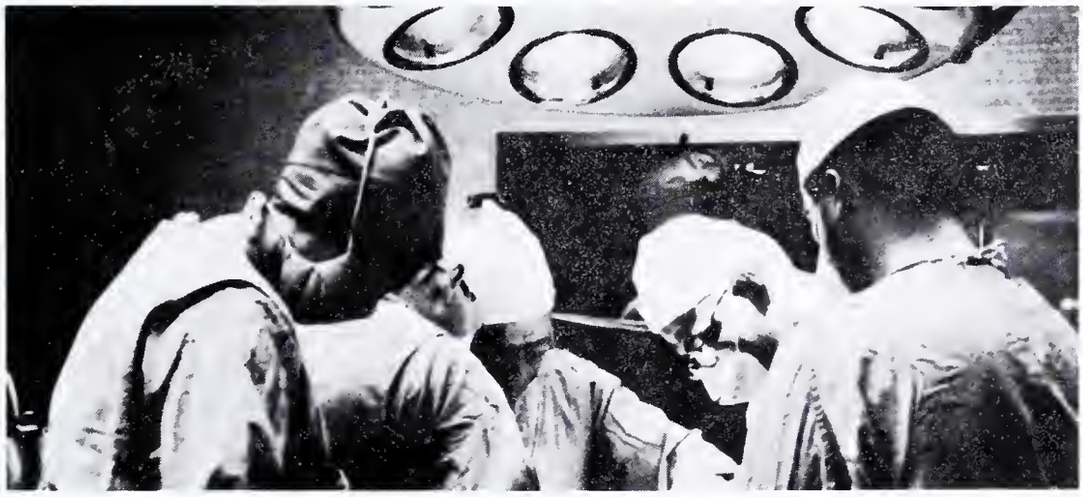

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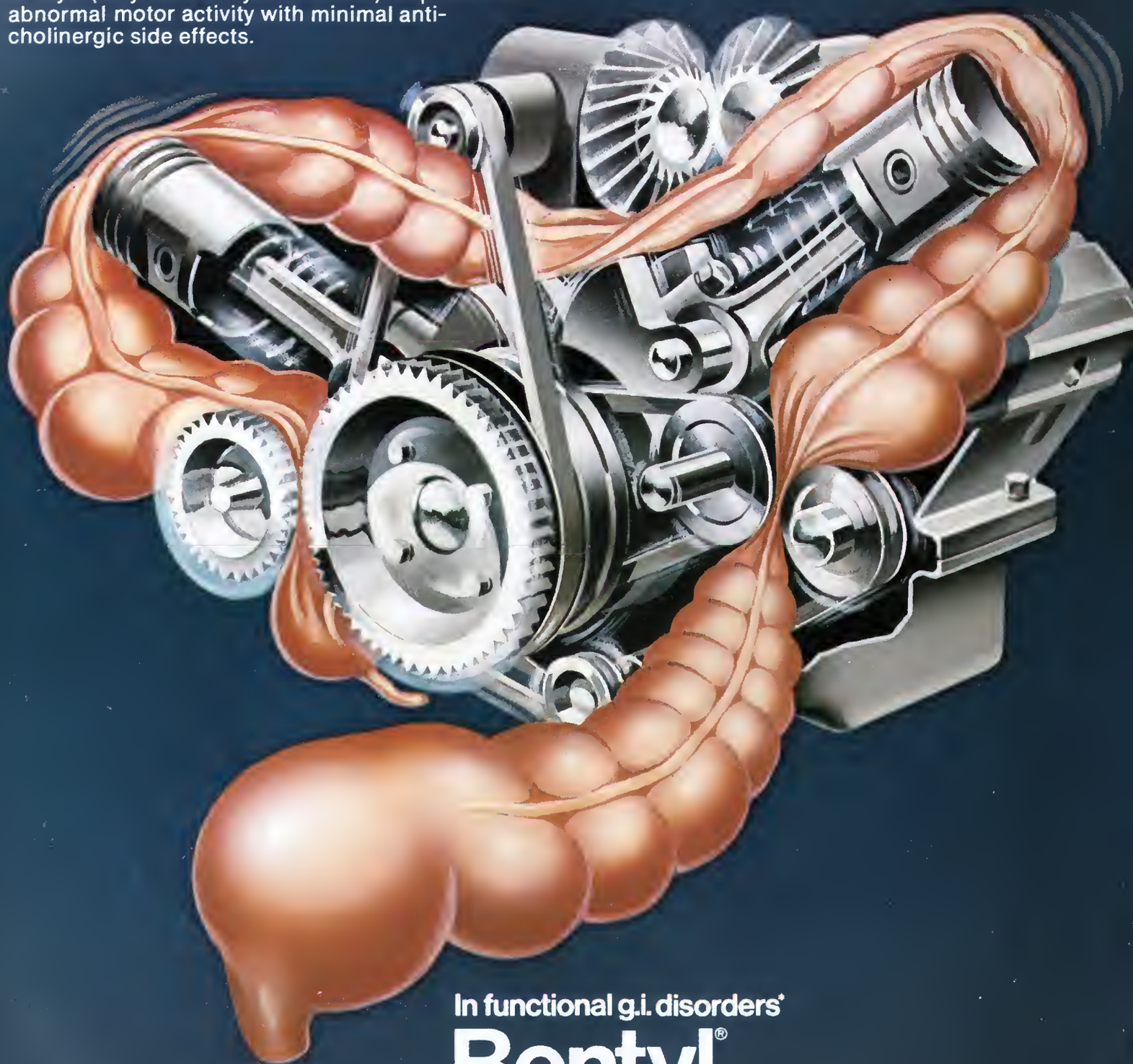
Abnormal motor function

Abnormal motor function is a frequent cause of the spasm, pain, distention and cramps that characterize a wide range of g.i. complaints. "It has been estimated that about three quarters of patients seeking medical care because of gastrointestinal complaints have functional derangements. Certainly these are more commonly related to abnormal motor activity than to anything else."[1]

Bentyl® (dicyclomine hydrochloride) helps control abnormal motor activity with minimal anti-cholinergic side effects.



In functional g.i. disorders*

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helps control abnormal motor activity.

*This drug has been classified "probably" effective in treating certain functional g.i. disorders. See brief summary.

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BRIEF SUMMARY

ACTION: Bentyl relieves smooth muscle spasm of the gastrointestinal tract

INDICATIONS: For use as adjunctive therapy in the treatment of peptic ulcer IT SHOULD BE NOTED AT THIS POINT IN TIME THAT THERE IS A LACK OF CONCURRENCE AS TO THE VALUE OF ANTICHOLINERGICS/ANTISPASMODICS IN THE TREATMENT OF GASTRIC ULCER IT HAS NOT BEEN SHOWN CONCLUSIVELY WHETHER ANTICHOLINERGIC/ANTISPASMODIC DRUGS AID IN THE HEALING OF A PEPTIC ULCER, DECREASE THE RATE OF RECURRENCES, OR PREVENT COMPLICATION

Based on a review of this drug by the National Academy of Sciences – National Research Council and/or other information, FDA has classified the indications as "probably" effective

May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders), and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon)

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS

For use in the treatment of infant colic (syrup)

Final classification of the less-than-effective indications requires further investigation

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy), obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis), paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis, toxic megacolon complicating ulcerative colitis, myasthenia gravis

WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating)

Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy In this instance treatment with this drug would be inappropriate and possibly harmful

Bentyl may produce drowsiness or blurred vision In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug

PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy Use with caution in patients with

Autonomic neuropathy

Hepatic or renal disease

Ulcerative colitis Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon

Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension.

Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis)

Do not rely on the use of the drug in the presence of complication of biliary tract disease

Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate

With overdosage, a curare-like action may occur

ADVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response The physician must delineate these

Adverse reactions may include xerostomia, urinary hesitancy and retention, blurred vision and tachycardia, palpitations, mydriasis; cycloplegia, increased ocular tension, loss of taste, headache, nervousness, drowsiness, weakness, dizziness, insomnia, nausea, vomiting, impotence, suppression of lactation, constipation, bloated feeling, severe allergic reaction or drug idiosyncrasies including anaphylaxis, urticaria and other dermal manifestations, some degree of mental confusion and/or excitement, especially in elderly persons, and decreased sweating

DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs

Usual Dosage: Bentyl 10 mg capsule and syrup
Adults 1 or 2 capsules or teaspoonfuls syrup three or four times daily
Children 1 capsule or teaspoonful syrup three or four times daily
Infants ½ teaspoonful syrup three or four times daily (May be diluted with equal volume of water)
Bentyl 20 mg Adults 1 tablet three or four times daily

Bentyl Injection: Adults 20 mg (2 ml.) every four to six hours intramuscularly only
NOT FOR INTRAVENOUS USE.

Reference 1 Lorber, S H G I Dialogue #1
MERRELL-NATIONAL LABORATORIES, 1976

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FALL 1978

PULMONARY MEDICINE – AN UPDATE FOR THE CLINICIAN

Vail, Colorado
September 18-21, 1978

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and the Colorado Chapter of the
American College of Chest Physicians

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The Mark
Vail, Colorado

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Thomas L. Petty, M.D., FCCP

Visiting Faculty:
Eugene D. Robin, M.D.
Edward C. Rosenow, III, M.D., FCCP
Daniel J. Stechschulte, M.D.

CREDIT: 19¼ hours credit toward the American Medical Association Physician's Recognition Award under Category 1.

Course Description:

The educational objective of this 3½ day course will focus on updating physicians in the field of pulmonary medicine. Emphasis will be placed on new diagnostic techniques and modes of therapy and pertinent pathophysiologic principles that will have a direct bearing on common problems encountered in pulmonary medicine. Case presentations will highlight the conference bringing out the practical aspects of certain pulmonary diseases. Ample time has been set aside for answering questions that can be submitted either in writing or orally, at each panel discussion and question and answer period.

SPECIAL SESSIONS

- Asthma
- Chronic Obstructive Pulmonary Disease
- Pulmonary Vascular Disease
- Pleural Disease
- Infectious Disease
- Diagnosis and Operability of Lung Cancer
- Hypersensitivity Lung Disease
- Mycobacterial Infection

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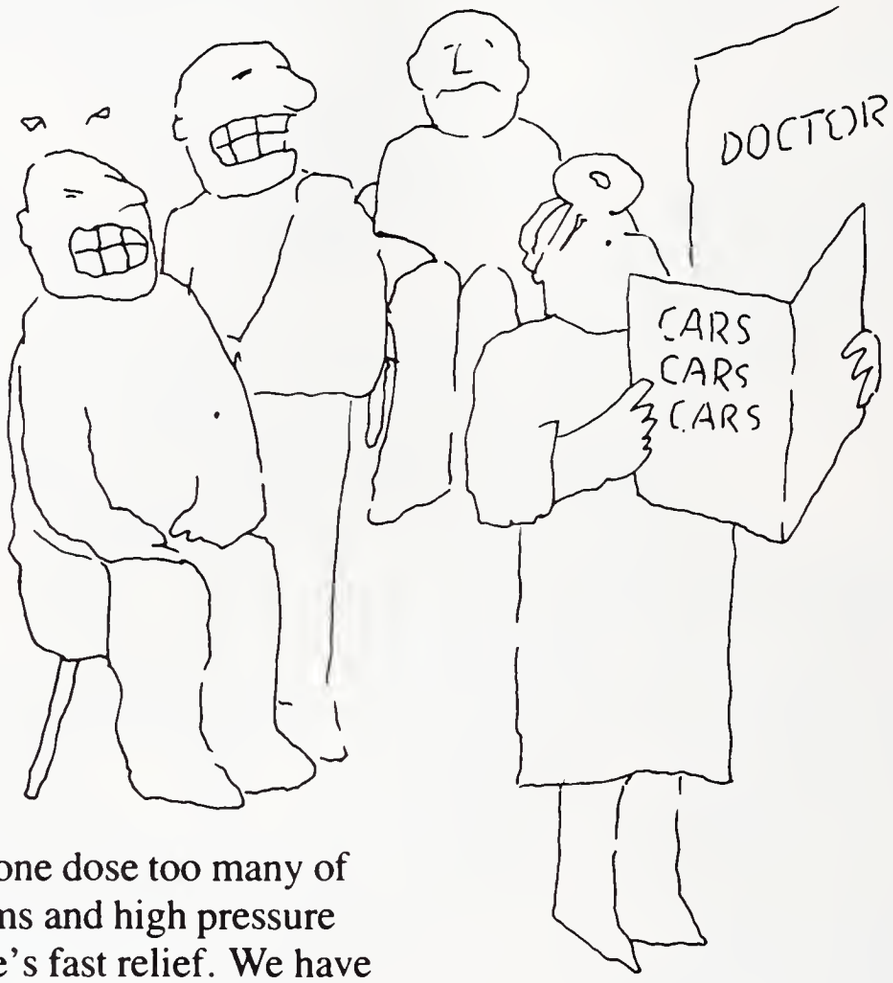

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AMA annual meeting set June 17-21 in St. Louis

The 127th annual convention of the American Medical Association will be June 17-21 in St. Louis.

The 1978 gathering will mark the end of the giant AMA annual summer meeting. The AMA is shifting emphasis toward multiple smaller sessions across the nation, aimed at providing continuing medical education for physicians.

Some 26 of the regional meetings are scheduled for 1979, offering physicians the opportunity to study on weekends. The AMA will continue to hold the annual winter scientific meeting each year. It will be in Las Vegas in 1978.

The AMA's June convention will offer physicians 55 continuing education courses covering the entire range of problems of diagnosis and treatment encountered by doctors. The AMA specialty sections will present programs in 28 different medical specialties.

FDA requires warning to women using oral contraceptives

The Food and Drug Administration put into effect a regulation requiring that oral contraceptives include a special warning that women who use them run a dramatically higher risk of heart attack or stroke if they smoke.

The FDA added the smoking warning to the precautions on a revised patient brochure that physicians or pharmacists must give women when they receive the contraceptives.

The warning, to appear in a box on both a detailed patient brochure and on a shorter leaflet, states:

"Cigaret smoking increases the risk of serious adverse effects on the heart and blood vessels from oral contraceptive use. This risk increases with age and with heavy smoking (15 or more cigarets per day) and is quite marked in women over 35 years of age. Women who use oral contraceptives should not smoke."

The new brochures also warn against use of the oral contraceptives by women who have had blood-clotting disorders, cancer of the breast or reproductive system, unexplained vaginal bleeding, a stroke, heart attack, or angina pectoris.

The FDA estimated that 8-10 million American women now take oral contraceptives, and that from 2.4 million to 4 million of them also smoke. The FDA said that taking oral contraceptives alone doubles the chances of a heart attack. Pill users who smoke are three times more likely to die of a heart attack than nonsmokers who take the pill, and ten times more likely than nonsmokers who don't use oral contraceptives, FDA said.

Texas physicians visit Congressmen in Washington

Representatives from 17 state medical societies including the Texas Medical Association recently visited their Congressmen in Washington to give their views on important pending health bills in a one-day legislative blitz.

Fifty-five physicians, medical society executives and other officials took part in the visitation sponsored by the AMA.

The state delegations focussed their talks on the hospital cost containment and health planning measures now heading for crucial votes. The state officials reported Congressmen were eager to hear their views and welcomed the interchange.

Those going from Texas included Joseph T. Ainsworth, MD; Charles Max Cole, MD; Arthur Jansa, MD; James K. Peden, MD; and John M. Smith, Jr, MD. Merle W. Delmer, MD, met with Rep Bob Krueger in San Antonio. Also in Washing, DC, were members of TMA Legal Counsel, Jack Maroney, Will Barber, and Ace Pickens.

Other states represented included California, Colorado, Connecticut, Florida, Illinois, Indiana, Louisiana, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia.

Leukemia society funding available for clinicians and basic researchers

Applications are now being accepted by the Leukemia Society of America, Inc for grants to give financial support to clinicians and basic researchers working to find a cure or control for leukemia and allied diseases of the blood-forming organs.

The awards are available in three categories. A five-year scholarship for $100,000 is presented to highly qualified individuals who have dem-

onstrated their ability to conduct original scientific research bearing on leukemia and related disorders, but who have not yet attained the tenured rank of associate professor.

Two-year special fellowships and fellowships for $31,000 and $25,000 are intended for those in the intermediate and beginning stages of career development. All grantees must hold doctoral degrees and are required to concentrate on research relevant to leukemia or lymphoma.

Application forms may be obtained from Rose Ruth Ellison, MD, Leukemia Society of America, Inc, 211 East 43 Street, New York, NY, 10017. Deadline for completed applications is Oct 1, 1978, with grants effective July 1979.

AMA foundation contributes to Texas medical schools

The American Medical Association Education and Research Foundation (AMA-ERF) has given more than $40,000 to Texas medical schools.

The unrestricted grants from the AMA-ERF are supported by contributions from Texas physicians, the TMA Auxiliary, and medical families.

The AMA-ERF presented $9,317.52 to the Southwestern School of Medicine in Dallas; $8,940.23 to the University of Texas School of Medicine in San Antonio; $3,183.17 to the University of Texas School of Medicine in Houston; $10,809.41 to the University of Texas Medical Branch in Galveston; $6,208.63 to the Baylor College of Medicine in Houston; $2,584.49 to the Texas Tech University School of Medicine in Lubbock; and $395.81 to the Texas A&M University College of Medicine in College Station.

New saccharin signs ordered

The Food and Drug Administration ordered markets and drugstores that sell products containing saccharin to post warnings that the artificial sweetener may be hazardous to health.

The FDA directed that the prominently displayed signs must read: "This store sells food including diet beverages and dietetic foods that contain saccharin. You will find saccharin listed in the ingredient statement on most foods which contain it. All foods which contain saccharin will soon bear the following warning: 'Use of this product may be hazardous to your health. This product contains saccharin which has been determined to cause cancer in laboratory animals.' "

Stores have been given 90 days to comply. The signs were required by legislation enacted last year delaying the FDA's proposed ban on saccharin for 18 months.

Coming next month

Articles scheduled for publication in July deal with cervical implantation of an ectopic pregnancy, patterns of change in pediatric practice, intraoperative autotransfusion for abdominal aortic aneurysm repair, and use of beta blocking drugs in the treatment of hypertension.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media*	1978 through 4/30	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	+ 10.8%	+38.0%	−23.1%	1%
Loomis-Sayles Mutual Fund	+ 0.2%	+25.3%	−18.2%	4%
Mercantile Bank Equity Fund	− 0.8%	+44.0%	−28.9%	0
Mercantile Bank Fixed Income Fund	− 0.9%	+10.7%	− 8.2%	0
T Rowe Price Growth Stock Fund	+ 3.6%	+33.9%	−33.8%	2%
T Rowe Price New Income Fund	− 3.3%	+ 6.6%	N/A	7%
Stein Roe & Farnham Balanced Fund	+ 0.2%	+25.8%	−23.8%	3%
Standard & Poor 500 Stock Average	+ 1.8%	+38.8%	−19.4%	
Dow Jones Industrial Average	+ 0.7%	+34.8%	−18.5%	

*Includes reinvested capital gains distributions.

CAPITAL COMMENTS

AUSTIN: GOV BRISCOE ENDORSES STATEWIDE PSRO. Texas Gov Dolph Briscoe has endorsed a statewide professional standards review organization (PSRO) in Texas in a letter to the US Dept of Health, Education, and Welfare. On March 3, 1978, HEW proposed revisions in guidelines to permit a state such as Texas to be designated a single statewide PSRO if no areas had been designated as of Jan 1, 1978, and if the HEW Secretary had obtained suitable evidence that a majority of physicians in the state favored a statewide PSRO area. In response to those comments, Gov Briscoe stated in the letter that he had previously recommended designation of a single statewide PSRO area for Texas. He said that as stated in his prior correspondence with the HEW office, he believed that a single PSRO in Texas would be in the best interests of both the citizens of Texas and HEW. In addition, Briscoe stated, "In sum, since first writing your office in early 1974, I have been, and am still, of the opinion that HEW has administrative discretion to designate Texas as a single statewide PSRO area and should do so. Accordingly, as Governor of Texas, I support the proposed revision and reaffirm my recommendation that HEW designate Texas as a single statewide PSRO area."

Editor's note: "Capital Comments" is prepared by Brown, Maroney, Rose, Baker & Barber, Attorneys at Law, TMA General Counsel, to highlight current items of interest relating to health matters in the US Congress federal agencies, state legislature, and Texas administrative agencies.

AUSTIN: GOVERNOR'S APPOINTMENTS. Texas Gov Dolph Briscoe has reappointed John W. Youngblood, MD, Austin, for a six-year term to expire Dec 31, 1983, to the Board of Examiners in the Fitting and Dispensing of Hearing Aids.

WASHINGTON: AWARDS TO INJURED WORKERS. The US Supreme Court has agreed to consider whether a jury should take income taxes into account in calculating a damage award to an injured worker to make up for the loss of future wages. A lower court, in a case involving an employee of the Chicago, Rock Island & Pacific Railroad, refused to let the railroad's attorneys bring up the fact that future wages would have been subject to federal and state income taxes, whereas a damage award is tax free. The damage award case arose in the context of the Federal Employees' Liability Act, which, among other things, requires railroads to furnish employees with reasonable, safe places to work. However, the Supreme Court could issue a ruling that would extend to personal injury cases in general. Lower courts have differed as to whether taxes should be taken into account in estimating future earnings.

WASHINGTON: HEW MEDICARE PHYSICIAN LIST. The list of physicians who supposedly received $100,000 and more from Medicare in 1975 is still haunting HEW. The department had to develop a revised list last year after the AMA found the original version to be about 65% inaccurate. Recently, the General Accounting Office (GAO) reported that HEW spent $14,000 to prepare the original list and $122,000 to correct it. The GAO said the listing was "poorly managed, full of mistakes, prematurely released and expensive." According to the GAO, 470 physicians protested errors in the list, including 300 who said an individual's name was used mistakenly to identify a group practice.

WASHINGTON: HEALTH PLANNING AGENCY COMPOSITION. Women and low status occupational groups are generally underrepresented on the governing boards and executive committees of the health system agencies, a report issued by the Health Resources Administration (HRA) shows. The report is based on the assessment of the composition of the boards, committees, and staffs of the HSAs and staffs of the state health planning & development agencies established under the National Health Planning & Resource Development Act of 1974. The study was sponsored by HRA's Office of Health Resource Opportunity, the Bureau of Health Planning & Resources Development, and the Alcohol, Drug Abuse & Mental Health Administration. Data were collected in 1976 on 134 HSA governing boards, 189 HSA staffs, and 47 state health agency staffs. Various minority groups were generally underrepresented on the boards and the executive committees. The boards generally contained representatives for the provider categories of health professionals, allied health professions, and health care institutions. A number of boards did not contain representatives of the health professions, schools, and health care insurors. Copies of the summary of the report are available from the Office of Health Resource Opportunity, Room 10-50, Center Bldg, 3700 East-West Highway, Hyattsville, Md 20782.

WASHINGTON: FOREIGN NURSE GRADUATES EXAMINATION. The first screening examination for foreign nurse graduates wishing to practice in the United States is scheduled to be given at 32 locations in 30 countries Oct 4, 1978. The examination will be administered by the Commission on Graduates of Foreign Nurse Schools, an independent, nonprofit agency established recently with support from the Bureau of Health Manpower Division of Nursing. The division is funding the development of the one-day examination which would test proficiency in nursing practice and English comprehension. Successful candidates will receive a certificate. A certificate is expected to help determine eligibility for immigration under a preference visa from the US Immigration & Naturalization Service, be a prerequisite for taking state licensing examinations, and be helpful in obtaining a work permit from the US Department of Labor. Applications are now available and must be submitted by July 1, 1978, to the Commission, 3624 Market Street, Philadelphia, Pa, 19104.

WASHINGTON: WAGE AND PRICE STUDY. The American Medical Association says it won't take the Council on Wage and Price Stability salary study lightly. James Sammons, MD, AMA executive vice president, said the council used inadequate and partial data in its report on physicians' salaries. That report, which said doctors are now the highest paid group in American society and make more money than they need to in order to attract an adequate number of physicians into the profession, rated a scathing reply from Dr Sammons. "Surely the public is not expected to believe there are no constraints on physicians' charges when the number of professional review mechanisms grows each year," Dr Sammons said. The AMA attacked the $63,000 figure the council said was the average income of doctors. It was taken from a survey done by *Medical Economics,* not council statistics, and the survey got only 40% response. "We at the AMA are not taking this report lightly," Dr Sammons said. A full scale response to the council's charges is being researched and AMA representatives said they expect the report to be countered by the AMA's figures and findings.

WASHINGTON: HEW ANTI-INFLATION CAMPAIGNS. Spurred by a phone call from President Carter, HEW Secretary Califano has unveiled a series of department efforts to hold down health care costs. He stressed that far more effective than any HEW initiative would be congressional passage of the Administration's Hospital Cost Containment Bill. Carter has called his bill one of the most important measures Congress can enact to combat inflation. Califano said HEW would publish fee schedules for the 12 most common laboratory tests, wheel chairs, and hospital bed purchases by patients. Because the price controls would limit only Medicare payments and not what the laboratories could charge, Medicare patient's out-of-pocket expenses could rise. The Secretary said he hoped physicians would be sympathetic and shop around for competitively priced tests. The fee schedules originally appeared as proposed regulations in 1975. In a new development, Califano called on professional standards review organizations to write local standards for lengths of stay so that costly unnecessary hospitalizations can be curbed. He made it clear that how PSROs respond will largely determine their collective fates in the minds of Carter Administration officials.

TEXAS: HOSPITAL COVERAGE. The Texas Hospital Association said establishment of its own malpractice insurance firm has led to a 9% reduction in premiums for the 107 hospitals it covers. The THA president said the Texas Hospital Insurance Exchange is charging $211 per bed for basic coverage, while the state's Joint Underwriting Association is charging about $363 per bed.

WASHINGTON: OPTOMETRY SUIT. The US Supreme Court has agreed to decide the constitutionality of the Texas law prohibiting an optometrist's use of any trade, corporate, or assumed name in connection with his or her optometry practice. A federal three-judge court in Beaumont had declared that section of the law unconstitutional and had enjoined its enforcement after J. Rogers, OD, Beaumont, and W.J. Dickinson, president of the Texas Senior Citizens Association, Port Arthur Chapter, brought suit in 1975. Dr Rogers, an owner of Texas State Optical, filed suit because the grace period which has permitted optometrists to practice under trade names since the law was passed in 1969 will be up next year. Dr Rogers had also challenged the statute which requires that two-thirds of the State Optometry Board be members of the Texas Optometric Association. Dr Rogers, because he operates a commercial company, is ineligible for membership in the TOA. The court upheld the constitutionality of the board composition, but Dr Rogers is appealing and the Supreme Court has agreed to hear arguments on that issue also. The declaration that the trade name section is unconstitutional is being appealed by five optometrists who are members of the Texas Optometry Board and TOA. The TOA, with a membership of about 500 licensed optometrists, said the section does not prohibit an optometrist from advertising or otherwise getting the message to the public that he or she has services to render.

WASHINGTON: FEDERAL OUTLAYS RISING. The President's fiscal 1979 budget calls for a total outlay of $49.7 billion for all health care purposes, including health care services, health research, health manpower education and training, and consumer and occupational health and safety. The biggest jump in federal spending is projected for Medicare and Medicaid. Medicare outlays are projected at $25.6 billion in fiscal 1978 and $29.4 billion in fiscal 1979. Medicaid outlays are projected by the President at $11 billion in 1978 and $12.1 billion in 1979.

WASHINGTON: RELATIVE VALUE STUDIES. The California Medical Association has agreed to a Consent Decree with the Federal Trade Commission on relative value studies. The CMA has recalled more than 27,000 copies of its relative value studies under the terms of the consent agreement with the Federal Trade Commission. In September 1976 the FTC charged that the CMA publication helps physicians fix prices in violation of antitrust laws. E. Kash Rose, MD, immediate past president of CMA, said "We feel that the courts eventually would uphold the legality of the relative value studies, but fighting the issue in the courts probably would cost millions of dollars and take many years, easy for big government but an impossibility for CMA. Therefore, we have reluctantly decided to take the only course that is physically feasible, and this is to stop issuing the relative value studies." Several other medical organizations have withdrawn their relative value studies under similar conditions in the past two years. "It is ironic," Dr Rose says, "that while the FTC insists that the relative value studies no longer can be used by physicians, it still will be used by government agencies to determine payment levels for their own health programs."

WASHINGTON: BLUE SHIELD PAYMENT SYSTEM. The usual, customary, and reasonable payment system of Blue Shield plans came under fire from Administration witnesses before the House Commerce Investigating Subcommittee headed by Rep John Moss, D-Cal. Robert Derzon, director of HEW's Health Care Financing Administration, told the subcommittee that a national fee schedule would be one approach to curb the rise in Blue Shield reimbursement. Zachary Dyckman, senior economist on the White House Council on Wage and Price Stability, testified that the usual, customary, and reasonable payment system "reduces the constraining effect of normal competitive market forces on physicians' fees . . . it reduces and often completely removes the patients' sensitivity to increased cost of care and may permit the physician to raise fees with little concern about losing patients." He said there are several options which would be less inflationary including tying fees to an index and negotiating fee schedules with local, state, or national medical societies. The president of Blue Cross and Blue Shield Associations, Walter McNerney, told the Subcommittee that the usual, customary, and reasonable payment system has been "widely accepted as a reasonable method for providing financial access to professional medical services while achieving physician cooperation and minimizing discrimination by physicians against patients seeking services fully paid for by such health benefit coverage." There is no evidence, McNerney said, that suggests any Blue Shield plan, regardless of board composition, has acted in any way other than in the best interests of the subscribers and the general public.

Time is the test of all things.

1954
1978

BRIEF SUMMARY

Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. May be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.

Precautions: Potassium intoxication by oral administration rarely occurs in patients with normal kidney function, however, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentrations of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a low-salt diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation.

Adverse Reactions: Nausea, vomiting, diarrhea, and abdominal discomfort have been reported. The most severe adverse effect is hyperkalemia.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications". Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

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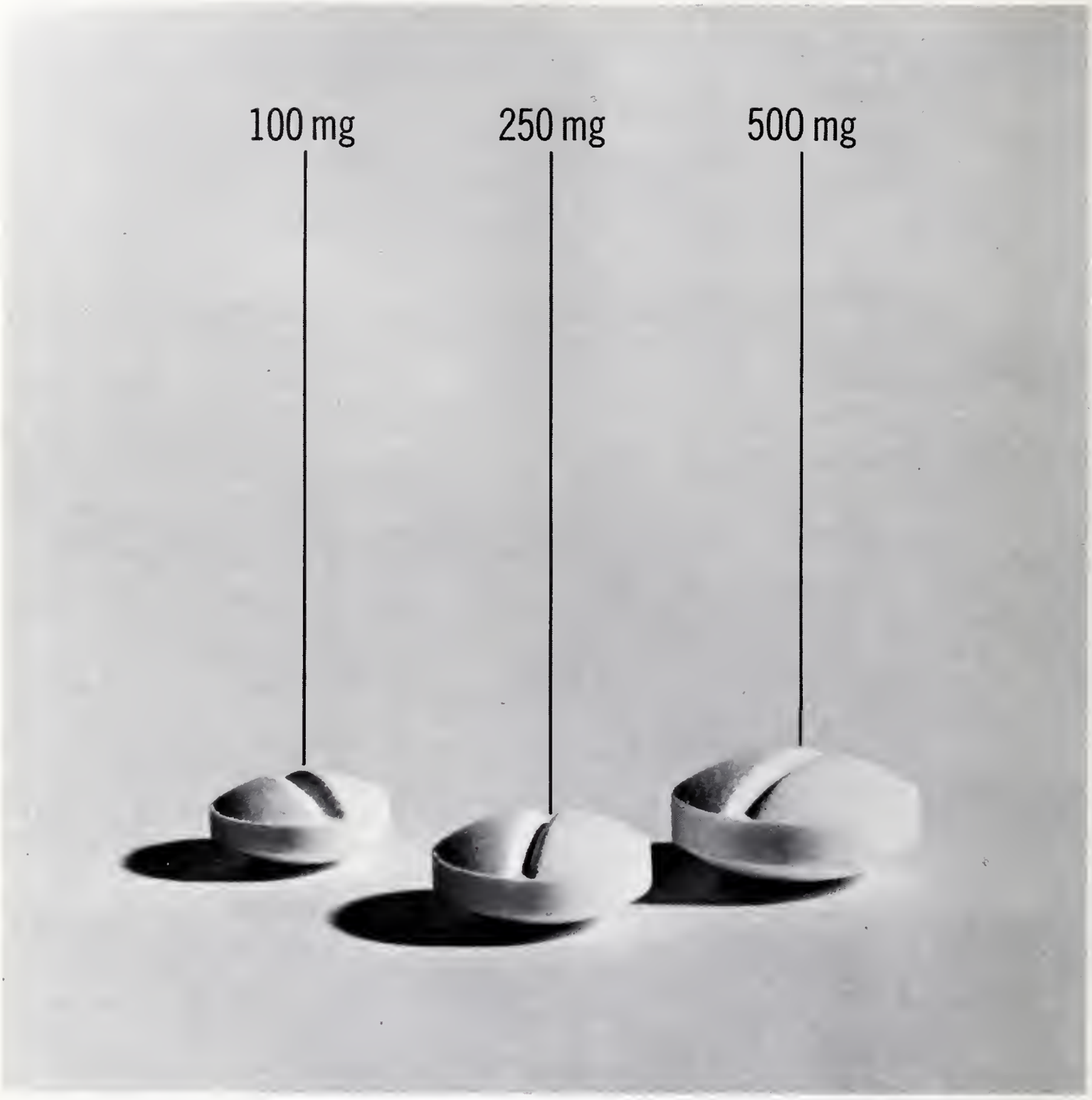

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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MEETINGS

AMERICAN MEDICAL ASSOCIATION

St Louis will host the American Medical Assocation's 127th Annual Convention June 17-21, 1978. Designed for physicians in all specialties, the scientific program emphasizes the practical aspects of new scientific developments. The program includes 55 Category 1 postgraduate courses, 30 sessions, 20 tele-courses, 13 clinical dialogues, 4 motion picture seminars and 100 scientific and 125 industrial exhibits. The St Louis Gateway and Exhibition Center is the site of the scientific program, and the House of Delegates will meet Sunday, June 18 through Thursday, June 22, at the Chase-Park Plaza Hotel. The AMA Auxiliary will convene in Stouffer's Riverfront Towers. In addition to the policy making meeting of the AMA Auxiliary House of Delegates, convention activities include educational sessions, historical tours, and youth activities. A dinner-cruise on the Mississippi River and a visit to the Missouri Botanical Garden highlight the social schedule.

Contact: AMA Department of Meeting Services, 535 N Dearborn St, Chicago 60610.

SOUTH PLAINS CHAPTER, TEXAS ACADEMY OF FAMILY PHYSICIANS

The Seventh Annual Medical and Surgical Seminar will be Thursday-Saturday, June 15-17, 1978, in the Lubbock Memorial Civic Center. Sponsored by the South Plains Chapter of the Texas Academy of Family Physicians, the seminar features 24 scientific presentations. Seminar topics include infection of the urinary tract, systemic fungal infections, viral meningitides, hyperlipemia, hyperthyroidism, hypothyroidism, evaluation of growth, oral estrogens, rheumatoid arthritis, osteoarthritis, hypertension, antibiotic therapy, staphylococcal infections, diabetes, and anaerobic infections. Edward R. Annis, Jr, MD, past president of the American Medical Association, will speak during a Saturday luncheon. A barbecue dinner and square dance, and a buffet dinner and symphony concert will provide entertainment for registrants. A registration fee of $90 includes three luncheons; medical students, interns and residents will be charged no fee for scientific sessions.

Contact: Norma Porres, MD, 4005 24th St, Lubbock 79410.

CURRENT NATIONAL MEETINGS

AMERICAN CANCER SOCIETY, INC, National Conference on Nutrition in Cancer, Washington Plaza Hotel, Seattle, Jun 29-Jul 1, 1978. Designed to inform medical community of recent developments concerning role of nutrition in cancer, factors in cause and prevention of cancer and nutritional management of cancer patient. No registration fee. Accredited by AMA and American Academy of Family Physicians. Contact: Sidney L Arje, MD, American Cancer Society—National Cancer Institute, 777 Third Ave, New York 10017.

AMERICAN SOCIETY OF COLON AND RECTAL SURGEONS, 77th Annual Convention, Town & Country Hotel, San Diego, Calif, Jun 11-15, 1978. Postgraduate courses, medical motion picture program, symposium on hepatic metastases. Twenty-two hours, Category 1, AMA Physician's Recognition Award. Hospitality Center open each morning for refreshments, informal visiting. Registration fees: physician members, $100; nonmember physicians, $150; spouses, $50; residents, interns, no fee. Scientific presentations include: Carcinoid tumors of the rectum; management of colon injuries; colostomy closure complications; local excision for early rectal cancer; total parenteral nutrition as primary therapy for inflammatory bowel disease; enter-cutaneous fistula; protein-calorie malnutrition in patients with colorectal cancer; colorectal surgeon as psychotherapist. Contact: 615 Griswold, Suite 516, Detroit 48226.

AMERICAN COLLEGE OF EMERGENCY PHYSICIANS, 1978 Southeast Emergency Medicine Congress, Orlando (Fla) Hyatt House, Jun 4-7, 1978. Cosponsored by Eleven Southeast Chapters, American College of Emergency Physicians; Region 4 Chapters, Emergency Department Nurses Association. Contact: Registrar, Southeast Congress, 600 Courtland St, Suite 420, Orlando, Fla 32804.

For other courses and symposia, see Continuing Education Courses, pp 35-36.

JUNE

AMERICAN CANCER SOCIETY, INC, Seattle, Jun 29-Jul 1, 1978. 777 Third Ave, New York 10017.

AMERICAN DIABETES ASSOCIATION, Boston, Jun 11-13, 1978. JL Dugan, Jr, Exec Vice-Pres, 600 Fifth Ave, New York 10020.

AMERICAN MEDICAL ASSOCIATION, Annual Convention, St Louis, Jun 17-22, 1978. 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Louis, Jun 14-18, 1978. Ms L Loesel, Exec Dir, 1740 Broadway, New York 10019.

AMERICAN VD ASSOCIATION, Honolulu, Jun 13-20, 1978. Frederick S Mayer, Box 1336, Sausalito, Calif 94965.

GEORGIA LUNG ASSOCIATION, Sea Island, Ga, Jun 14-18, 1978. Flay W Sellers, Managing Dir, 1383 Spring St, NW, Atlanta 30309.

ROCKY MOUNTAIN NEUROSURGICAL SOCIETY, INC, Colorado Springs, Colo, Jun 11-14, 1978. Harry Starr, MD, 3260 Fannin St, Beaumont, Tex 77701.

JULY

AMERICAN ACADEMY OF FAMILY PHYSICIANS, NEW MEXICO CHAPTER, Mescalero, NM, Jul 17-20, 1978. Box 456, Sunland Park, NM 88063.

AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE, Ann Arbor, Mich, Jul 10-15, 1978. Box 222, Morton Grove, Ill 60053.

INTERNATIONAL ACADEMY OF PHYSICIANS AND SURGEONS, Kyoto, Japan, Jul 2-7, 1978. Alfred Soffer, MD, Exec Dir, 911 Busse Highway, Park Ridge, Ill 60068.

ROYAL SOCIETY OF MEDICINE, London, Jul 23-28, 1978. Conference Office, 43 Charles St, Mayfair, London W1X 7PG, England.

AUGUST

ASPEN MUSHROOM CONFERENCE, Aspen, Colo, Aug 13-18, 1978. Beth Israel Hospital, 1601 Lowell Blvd, Denver 80204.

COLLEGE OF AMERICAN PATHOLOGISTS, Boston, Aug 18, 1978. 7400 N Skokie Blvd, Skokie, Ill 60076.

INTERNATIONAL SOCIETY FOR EXPERIMENTAL HEMATOLOGY, Chicago, Aug 27-31, 1978. Walter Fried, MD, Division of Hematology/Oncology, Michael Reese Hospital and Medical Center, 29th & Ellis Ave, Chicago 60616.

SEPTEMBER

AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE, New York, Sep 24-29, 1978. 2317 W Jefferson St, Suite 208, Joliet, Ill 60435.

AMERICAN CANCER SOCIETY, INC, National Conference on Care of the Child With Cancer, Boston, Sep 11-13, 1978. 777 Third Ave, New York 10017.

■ AMERICAN COLLEGE OF EMERGENCY PHYSICIANS, Houston, Sep 19-21, 1978. AE Auer, Exec Dir, 3900 Capital City Blvd, Lansing, Mich 48906.

AMERICAN MEDICAL ASSOCIATION, 38th Annual Congress on Occupational Health, Tucson, Ariz, Sep 14-16, 1978. Barbara S Jansson, Department of Environmental, Public, and Occupational Health, 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL ASSOCIATION, Medical Staff Leadership Seminar, New Orleans, Sep 29-30, 1978. Department of Hospitals and Health Facilities, 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL ASSOCIATION, 3rd Natl Conference on Impaired Physicians, Minneapolis, Sep 29-Oct 1, 1978. 535 N Dearborn, Chicago 60610.

AMERICAN SOCIETY OF INTERNAL MEDICINE, Orlando, Fla, Sep 29-30, 1978. 535 Central Tower Bldg, 703 Market St, San Francisco 94103.

■ BLACKFORD MEMORIAL LECTURES, Denison, Tex, Sep 9, 1978. John D Gleckler, MD, 211 N Fannin, Denison, Tex 75020.

■ FLYING PHYSICIANS ASSOCIATION, INC, Houston, Sep 9-14, 1978. Al Carriere, Business Counsel, 801 Green Bay Rd, Lake Bluff, Ill 60044.

■ SOUTH PLAINS CHAPTER, TEXAS ACADEMY OF FAMILY PHYSICIANS, Lubbock, Sep 23, 1978. Norma Porres, MD, Sec, 4005 24th St, Lubbock, Tex 79410.

■ TEXAS MEDICAL ASSOCIATION, Fall Conference, Austin, Tex, Sep 22-24, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.

■ TEXAS PEDIATRIC SOCIETY, Amarillo, Tex, Sep 15-16, 1978. Laurance N Nickey, MD, District Chairman, 1515 N Oregon St, El Paso, Tex 79902.

WORLD FEDERATION OF NUCLEAR MEDICINE AND BIOLOGY, Washington, DC, Sep 17-21, 1978. 1629 K St, NW, Suite 700, Washington, DC 20006.

OCTOBER

■ PANHANDLE DISTRICT MEDICAL SOCIETY, Amarillo, Tex, Oct 21, 1978. Carlie Umphres, Box 3276, Amarillo, Tex 79604.

AMERICAN MEDICAL ASSOCIATION, 2nd Annual Jail Conference, Chicago, Oct 27-28, 1978. 535 N Dearborn, Chicago 60610.

SOCIETY FOR CLINICAL AND EXPERIMENTAL HYPNOSIS, Asheville, NC, Oct 17-22, 1978. Mrs Marion Kenn, Admin Dir, 129A Kings Park Dr, Liverpool, NY 13088.

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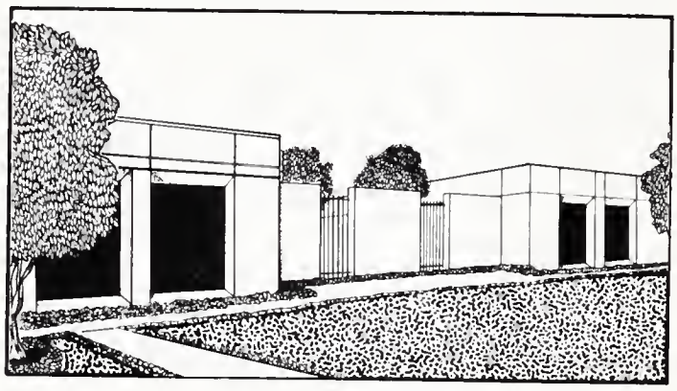

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CONTINUING EDUCATION COURSES

EDITOR'S NOTE: Continuing education courses are listed in each issue. Information about courses should be submitted in writing six weeks before publication; for example, information for the June issue (published June 1) is needed by April 15.

JUNE

Internal Medicine

Title: A Review of Internal Medicine
Sponsor: Baylor College of Medicine, Houston
Location of Course: Baylor College of Medicine, 1200 Moursund, Houston
Date: June 15-17, 1978
Duration: Continuous; 3 days; 8 hours instruction per day; Thursday-Saturday; 24 total course hours
Fee: To be announced
Designed For: Specialists in Internal Medicine, Family Medicine
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 24 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, 1200 Moursund, Houston 77030

Pediatrics

Title: Pediatric Review Course
Sponsor: Baylor College of Medicine, Houston
Location of Course: Holiday Inn-Medical Center, 6701 S Main, Houston
Date: June 3-4, 1978
Duration: Continuous; 2 days; 8 hours instruction per day; Saturday-Sunday; 16 total course hours
Fee: To be announced
Designed For: General practitioners; Specialists in Pediatrics
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel, seminar
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Psychiatry

Title: Third International Field Studies on Psychiatry and Culture
Sponsors: Department of Psychiatry, Southwestern Medical School, UT Health Science Center at Dallas; A. Webb Roberts Center for Continuing Education
Location of Course: Paris and Italy
Date: June 19-July 3, 1978
Duration: Continuous; 15 days
Fee: $100 plus travel expenses
Designed For: General practitioners; Specialists in Psychiatry
Enrollment: Minimum, 20; Maximum, 50
Credit: Category 1, AMA Physician's Recognition Award
Teaching Methods: Audiovisual materials, open question, seminar
Contact: June Bovill, Assistant to the Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Public Health & Preventive Medicine

Title: Drug Abuse and Alcoholism on the US-Mexico Border
Sponsors: US-Mexico Border Health Association, El Paso; Pan American Health Organization
Location of Course: To be announced
Date: June 1978
Duration: Continuous; 2-3 days; 6 hours instruction per day; 9 am-5 pm
Fee: Selected health authorities, members, no fee
Designed For: Specialists
Teaching Methods: Seminar
Contact: Boris Velimirovic, MD, Chief, FO/USMB, PAHO, 509 US Court House Bldg, El Paso 79901

Title: Aerobics Workshop
Sponsor: Institute for Aerobics Research, Dallas
Location of Course: 12100 Preston Rd, Dallas
Date: June 8-10, 1978; Repeated Aug 10-12, 1978, Jan 11-13, 1979
Duration: Continuous; 3 days; 10 hours instruction per day; Thursday-Saturday; 7 am-9 pm; 28 total course hours
Fee: $235
Designed For: General practitioners; Specialists
Enrollment: Maximum, 34
Credit: Category 1, AMA Physician's Recognition Award; 20 hours
Teaching Methods: Audiovisual materials, enrollee performs procedure, laboratory work, lecture, open question, patient demonstration, seminar
Contact: William Walker, Workshop Coordinator, Institute for Aerobics Research, 11811 Preston Rd, Dallas 75230

Surgery

Title: The Management of Difficult Surgical Problems
Sponsor: Department of Surgery, UT Medical School at Houston
Location of Course: Third Floor Auditorium, UT Medical School Main Building, 6431 Fannin, Houston
Date: June 1-3, 1978
Duration: Continuous; 2½ days; Thursday-Saturday; 16 total course hours
Fee: Practicing physicians, $150; Residents with letter of confirmation from head of department, $75
Designed For: Specialists in Surgery
Credit: Category 1, AMA Physician's Recognition Award; 16 hours
Teaching Methods: Audiovisual materials, lecture, panel, seminar
Contact: Eugene W. Adcock III, MD, Assistant Dean for Continuing Education, UT Medical School at Houston, Box 20708, Houston 77025

Other: Psychology

Title: Behavior Therapy Modification
Sponsors: Texas Department of Mental

Health and Mental Retardation, Texas Research Institute of Mental Sciences
Location of Course: Austin Marriott Hotel Conference Center, 6121 I35 at US 290, Austin
Date: June 5-6, 1978
Duration: Continuous; 2 days; Monday, 9 am-7:30 pm; Tuesday, 8:30 am-3 pm
Fee: $25
Designed For: Physicians, psychologists, nurses, social workers, BTM programmers, other MHMR professionals involved with behavior modification programs
Credit: Category 1, AMA Physician's Recognition Award; 12 hours
Contact: Robert R. White, Director, Continuing Education, TDMHMR, Box 12668, Capital Station, Austin 78711

Other

Title: Fifth Annual Conference on Systems and Devices for the Disabled
Sponsors: Baylor College of Medicine, Houston; Texas Institute for Rehabilitation and Research
Location of Course: Stouffer's Hotel, Greenway Plaza, Houston
Date: June 7-9, 1978
Fee: $80, 3 days; $30 per day
Credit: Category 1, AMA Physician's Recognition Award
Contact: Fifth CSDD, Texas Institute for Rehabilitation and Research, Biomedical Engineering Department, 1333 Moursund Ave, Houston 77030, (713) 797-1440, ext 297

JULY

Family Medicine

Title: Family Practice Review Course
Sponsors: Baylor College of Medicine, Houston
Location of Course: Marriott Motor Hotel, 2100 S Braeswood, Houston 77030
Date: July 12-15, 1978
Duration: Continuous; 4 days; 8 hours instruction per day; Wednesday-Saturday
Fee: $275
Designed For: General practitioners; Specialists in Family Medicine
Enrollment: Minimum, 50; Maximum, 200
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 34 hours
Teaching Methods: Audiovisual materials, lecture, open question, panel
Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Title: Family Practice Recertification Review
Sponsors: UT Health Science Center at San Antonio
Location of Course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio
Date: July 28-30, 1978
Duration: Continuous; 3 days; 6 hours instruction per day; Friday-Sunday; 16 total course hours
Fee: $160
Designed For: Specialists in Family Medicine
Enrollment: Maximum, 200
Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours
Teaching Methods: Audiovisual materials, lecture, open question, seminar, television
Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284, (512) 696-6295

Radiology & Radioisotopes

Title: External Beam, Interstitial, and Intracavitary Dosimetry—Principles
Sponsors: Division of Continuing Education, UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute
Location of Course: UT Health Science Center at Houston, 1100 Holcombe, Houston
Date: July 3-14, 1978
Duration: Continuous; 10 days; 2 weeks; 8 hours instruction per day; Monday-Friday; 80 total course hours
Fee: $350
Designed For: Specialists in Radiotherapy; Physicists
Teaching Methods: Enrollee performs procedure, laboratory work, lecture
Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Title: External Beam, Interstitial, and Intracavitary Dosimetry—Manual and Computer Methods of Calculation
Sponsors: Division of Continuing Education, UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute
Location of Course: UT Health Science Center at Houston, 1100 Holcombe, Houston
Date: July 17-28, 1978
Duration: Continuous; 10 days; 2 weeks; 8 hours instruction per day; Monday-Friday; 80 total course hours
Fee: $350
Designed For: Specialists in Radiotherapy; Physicists
Teaching Methods: Enrollee performs procedure, laboratory work, lecture
Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Anaphylaxis

J. Andrew Grant, MD

Anaphylaxis is a life-threatening syndrome, usually triggered by exposure to drugs, foods, or stinging insects. Symptoms develop within seconds or minutes (rarely, hours) after exposure and may involve the cardiovascular, respiratory, cutaneous, or gastrointestinal systems. Factors released from the blood basophil and tissue mast cell are thought to be responsible for anaphylaxis. Avoiding exposure to known allergens is infinitely preferable to any form of treatment, but adrenalin can be of great value.

About the beginning of this century it was reported that if dogs were injected repeatedly with a poison from the sea anemone, a fatal reaction called "anaphylaxis" eventually developed. This response was not explained by the actions of the toxin alone. In 1909, Friedberger showed that a similar fatal reaction was produced when animal serum was activated by a variety of substances and reinjected. He proposed that an "anaphylatoxin" was formed from the serum complement system. Shortly thereafter, Dale and Laidlow suggested that the major events in anaphylaxis could be explained by the actions of histamine. In 1921, Prausnitz and Küstner demonstrated that a localized counterpart of systemic anaphylaxis could be passively transferred by serum. Thus, participation of a serum protein, possibly an antibody, was postulated. The precise role of antigens, antibodies, complement, and histamine in the pathogenesis of anaphylaxis has remained a subject of dispute until recently.[1-3]

Immunologic Considerations

The central feature of anaphylactic reactions is that individuals are sensitized by previous exposure to a specific antigen and, upon reexposure, systemic symptoms develop within seconds or minutes. The severity and nature of these symptoms is variable, but fatal shock can occur.

An immunologic basis for most anaphylactic reactions is apparent. Hypersensitivity reactions have been divided by Gell and Coombs into four major categories (Fig 1).[4]

Type I immediate hypersensitivity reactions are characterized by onset of symptoms shortly after exposure to antigens. Allergic rhinitis, bronchial asthma, and urticaria may be produced by mechanisms similar to those responsible for anaphylaxis.

Although a unique class of antibodies that could sensitize tissues for immediate hypersensitivity reactions was postulated after the studies of Prausnitz and Küstner, IgE was not recognized until 1966. Of the five classes of immunoglobulins in serum, IgE is present in the lowest concentration

1. Classes of hypersensitivity reactions.

Type	Examples	Mechanisms
I	Anaphylaxis	IgE Mast cells or basophils Histamine and other mediators
II	Hemolytic anemia	Antibodies against cellular or tissue antigens or against an antigen bound to cells Complement or mononuclear cells
III	Serum sickness	Antigen-antibody complexes Complement
IV	Tuberculosis Contact dermatitis	Activated lymphocytes Basophils

(100 ng/ml, approximately 100,000 times less than IgG). Each antibody class has a unique heavy chain; IgE has an epsilon heavy chain. This chain conveys upon IgE its unique immunologic properties, the most important of which is an affinity for blood basophils and tissue mast cells.

A number of animal models for anaphylaxis have been studied extensively. It appears that the onset of clinical symptoms correlates with activation and release of multiple low molecular weight mediators from the mast cell and basophil. Antigens bind to specific IgE antibodies on the surface of these cells. Secondarily, a series of events is set in motion that results in degranulation and release of preformed mediators as well as synthesis of others (Fig 2).

All of the mediators listed in Fig 2 have been tentatively identified in human tissues. Most of the primary mediators are thought to be released from basophils and mast cells following immunologic challenge. Histamine has been recovered from the blood of patients undergoing anaphy-

2. Mediators of type I immediate hypersensitivity reactions.

	Chemical Nature	Biological properties
Primary Preformed Mediators:		
Histamine	Amine	Contracts smooth muscle Increases vascular permeability Attracts eosinophils
Eosinophil chemotactic factor of anaphylaxis (ECF-A)	Tetrapeptide	Attracts eosinophils
Basophil kallikrein of anaphylaxis (BK-A)	Protein	Forms bradykinin
Primary Synthesized Mediators:		
Slow reacting substance of anaphylaxis (SRS-A)	Acidic sulfated ester, molecular weight 300	Contracts smooth muscle Increases vascular permeability
Platelet activating factor (PAF)	Phospholipid, molecular weight 400	Clumps and degranulates platelets
Neutrophil chemotactic factor of anaphylaxis (NCF-A)	Protein	Attracts neutrophils
Secondary Synthesized Mediators:		
Prostaglandins	20-carbon unsaturated fatty acids	Diverse
Bradykinin	Nonapeptide	Contracts smooth muscle Increases vascular permeability Increases pain Dilates arterioles

lactic shock, and other primary mediators have been isolated in various studies. It is clear that although the pharmacologic effects of histamine are potent, participation of these other mediators is likely.

It is speculated that prostaglandins play a role in many physiologic reactions, including anaphylaxis. Prostaglandins probably are not synthesized directly by mast cells or basophils, but synthesis of prostaglandins is stimulated by either histamine or slow reacting substance of anaphylaxis (SRS-A). Thus, prostaglandins are considered a secondary rather than primary mediator of anaphylaxis.[5] Bradykinin is formed by the cleavage of a serum protein, kininogen, by basophil kallikrein of anaphylaxis (BK-A).

Degranulation of basophils can be triggered by mechanisms other than that of antigens binding to IgE (type I reaction). Complement can be activated in type II and III hypersensitivity reactions (Fig 1), as well as by certain chemicals. This reaction causes production of anaphylatoxin, now identified as C5a from the fifth component

3. Pathology of human systemic anaphylaxis.

System	Pathophysiology	Signs and Symptoms
Cardiovascular	Vasodilatation Increased vascular permeability Loss of intravascular volume Eosinophilia	Dizziness Shock Unconsciousness Tachycardia Arrhythmias
Respiratory	Bronchospasm Edema of upper and lower airway Increased secretions Acute emphysema Eosinophilic infiltration	Sneezing Rhinorrhea Dyspnea Cough Wheezing Respiratory failure
Cutaneous	Increased vascular permeability	Pruritus Warmth Erythema Urticaria Angioedema
Gastrointestinal	Visceral edema and hypermotility	Nausea Emesis Diarrhea Abdominal pain

of complement. C5a can release histamine, BK-A, and possibly other basophilic mediators.[6]

Pathology of Anaphylaxis

Although a number of animal models for anaphylaxis have been studied extensively, none of them completely reproduces the pattern seen in humans. This probably reflects differences, both quantitative and qualitative, in the mediators involved (Fig 2), as well as the differences in sensitivity of the various target organ systems to the effects of these mediators. The systems involved, mechanisms of action, and signs and symptoms of human anaphylaxis, are enumerated in Fig 3.

Patients may present signs and symptoms related to any one of these organ systems or any possible combination. Thus, the presenting manifestations of anaphylaxis differ widely from patient to patient.

The major causes are listed in Fig 4. Most anaphylactic reactions to drugs occur following injection, although drugs given by mouth have been implicated in some cases. Applications of drugs to mucous membranes or to inflamed tissues are also frequent predisposing factors for eventual anaphylactic reactions. The oral route is preferred for any drug whenever possible. The risk of an anaphylactic reaction also increases with the number of drugs to which a person is exposed.

4. Causes of human anaphylaxis.

A. Drugs
1. Penicillin, penicillin analogues and other antibiotics
2. Radiographic contrast media
3. Aspirin, indomethacin and other analgesics
4. Allergenic extracts
5. Biologicals
   a. Serum proteins including gamma globulin
   b. Insulin and other hormones
   c. Vaccines
   d. Enzymes such as penicillinase
6. Local anesthetics
7. Essentially any drug

B. Hymenoptera Stinging Insects
1. *Polistes* wasps
2. Honey bees
3. Fire ants
4. Hornets and yellow jackets in other geographic regions

C. Foods
1. Nuts
2. Seafoods, especially shellfish
3. Eggs
4. Fruits, especially citrus and strawberries
5. Tartrazine, yellow dye #5
6. Probably any food

Treatment

Although there are several steps in emergency treatment of anaphylaxis (Fig 5), the drug to be used in all cases is aqueous adrenalin, usually 0.3 to 0.6 cc of a 1:1,000 dilution, subcutaneously. The dose can be repeated at intervals of 5-30 minutes, although patients must be monitored carefully for signs of adrenergic toxicity. If vascular collapse has occurred, adrenalin can be given slowly by the intravenous route, 5-10 cc of 1:10,000 dilution. In some cases, prolonged shock may require continued intravenous infusion of adrenalin.

Antihistamines do not fully reverse the symptoms of anaphylaxis and are, therefore, of secondary importance. This fact has been taken as evidence for the existence of mediators other than just histamine in the pathogenesis of anaphylaxis. Antihistamines are usually given orally or intramuscularly (for example, diphenhydramine, 25-75 mg), but also intravenously (if the patient is not in shock, since intra-

venous antihistamines can make hypotension worse).

In hypotension (blood pressure less than 90/50 mm Hg), the patient should be placed supine with legs elevated. Intravenous fluids may be of considerable benefit in reexpanding vascular volume that has been depleted by vasodilatation and by reduction in absolute volume through loss of fluid into the interstitial spaces. Isotonic electrolyte solutions, as well as appropriate doses of adrenalin, will reverse most cases of anaphylactic shock. Other volume expanders have also been used, including albumin, plasma, and Plasmanate. Because of frequent complications, dextran has been essentially replaced by hydroxyethyl starch as a synthetic plasma expander for shock. In cases in which extensive replacement therapy is necessary, careful monitoring of central venous or pulmonary pressures may be required.

Aminophylline (250-500 mg given intravenously over 15-30 minutes) may be beneficial for reversing bronchospasm. Glucocorticoids are of no value in treatment of acute cases, but may be given for their supportive effect to patients with severe anaphylaxis, to improve the rate of recovery and to reduce the extent of edema.

The major therapeutic objective, other than supporting circulation, is assuring adequate ventilation. Oxygen may be of value in some patients. Tracheostomy or orotracheal intubation and possibly mechanical ventilation may be required.

If the antigen producing anaphylaxis has been injected into an extremity, application of a tourniquet above the site of injection may retard systemic absorption.

If the cause of an anaphylactic reaction can be identified, the risk of further attacks should be prevented by avoidance of exposure. In the case of insect anaphylaxis, patients should be provided with injectable adrenalin and antihistamine tablets to carry with them at all times.

Penicillin Allergy

The most common cause of anaphylactic reactions today is penicillin and its related compounds. Several hundred deaths each year are documented in this country from penicillin anaphylaxis, but this figure may be a gross underestimate of the true mortality rate. The immunologic model in which IgE antibodies are made against the penicillin molecule (or its degradation products) is probably valid in explaining the mechanism of this drug reaction. Of course, penicillin is also the most common cause of other types of drug reactions, which occur from hours to weeks following its administration.[7]

The incidence of penicillin type I sensitivity in the population is less than 5%. Even the majority of patients who report a history of penicillin allergy will not have anaphylaxis upon subsequent administration of the drug.

The usual means of identifying a patient who might have an anaphylactic reaction to penicillin is by checking the patient's history. Patients who have had the symptoms listed in Fig 3 within hours after the administration of penicillin are at great risk of having a subsequent anaphylactic reaction.

5. Treatment of anaphylaxis.

1. Drugs
   a. Adrenalin
   b. Antihistamines
   c. Aminophylline
   d. Glucocorticoids
2. Volume expansion
3. Ventilation
4. Avoidance of future exposure

Anaphylaxis

In general, readministration of penicillin or related compounds is contraindicated except for life-threatening infection. Under these circumstances, "desensitization" may be possible by gradual administration of increasing doses of penicillin.

For most patients, the diagnosis of penicillin anaphylactic hypersensitivity is not as clear-cut. In these persons an appropriate diagnostic test would be ideal, but unfortunately, such a test does not exist. A conjugate of benzyl penicillin has recently been released for skin testing. This compound, penicilloyl polylysine (Pre-Pen), appears to be most helpful in predicting delayed reactions to penicillin. Many anaphylactic reactions, however, probably develop against derivatives of benzyl penicillin, so-called "minor determinants." No reagent for testing against minor determinants is legally available at this time. Some investigators believe that careful testing with increasing doses of benzyl penicillin as well as Pre-Pen may identify the majority of persons who will develop subsequent anaphylaxis. Obviously, if there is any question about a particular patient, avoidance or a program of desensitization is in order.

Cross-reactivity between benzyl penicillin and semisynthetic penicillins often occurs, and cross-reactivity between benzyl penicillin and cephalosporins has been reported. Therefore, if a patient gives a history of an allergic reaction to one of these drugs, he probably should avoid all of the others.

Recently a method of testing for penicillin hypersensitivity *in vitro* has been developed. Specific IgE antibodies against penicillin can be measured by the radioallergosorbent test. This procedure is of limited value, however, because it is laborious, requires approximately one day for completion, and is available at only a limited number of research laboratories. Several investigators are actively seeking tests that could be performed in the community hospital.

DeWeck has developed a monovalent hapten from penicillin, benzyl-penicilloyl-formyl-lysine. In early trial studies, this compound prevented development of anaphylaxis, presumably by blocking the IgE antibodies.

The principles outlined in this section for penicillin can probably be applied to most other drugs. Skin testing with proteins such as hormones, gamma globulin, or enzymes, is quite effective in predicting anaphylactic hypersensitivity. Most compounds are monovalent haptens, however, and the absence of a positive skin test is no assurance that fatal anaphylaxis will not occur when the drug is administered.

Aspirin

Aspirin is certainly the most widely used drug. Although it is usually well tolerated, a substantial percentage of the population (recently estimated at approximately 5%) may have acute reactions to it. Symptoms include asthma, urticaria, and angioedema, as well as systemic shock. It seems, however, that immunologic mechanisms are infrequently involved.

Most patients who have reactions to aspirin also react to other nonsteroidal anti-inflammatory agents such as indomethacin (Indocin), mefenamic acid (Ponstel), ibuprofen (Motrin) and naproxen (Naprosyn). All of these agents are inhibitors of prostaglandin synthesis.

It has been postulated that susceptible persons produce a prostaglandin compound with beneficial properties. When synthesis of this compound is prevented by aspirin (and related drugs), the adverse reactions listed occur. Therefore, aspirin reactions may not involve an immunologic mechanism. In a small percentage of aspirin-sensitive patients, symptoms will also develop exposure to tartrazine, yellow dye no. 5, which is frequently added to prepared foods and to drug capsules. It is hoped that this substance will be removed from these products within the near future.

There is no diagnostic test to determine aspirin sensitivity.

Radiographic Contrast Media

Anaphylactic reactions to radiographic contrast media also may not be produced by immunologic mechanisms. Recent studies[8] have documented activation of the human complement system and apparent production of the anaphylatoxin-like substance described by Friedberger. Pretreatment with antihistamines and corticosteroids has been reported to reduce the hazard of reexposure in persons who have had an anaphylactic reaction.[9]

Insect Stings

Participation of type I IgE mechanisms in the production of anaphylaxis after insect stings is well documented. The major difficulty with these reactions is that the biologic material currently available for both diagnosis and treatment may be inactive. These products are derived by extracting antigens from the whole body of insects. Obviously, the relevant antigens for determining reactions to insect stings are confined to the venom and are probably destroyed by extraction of the entire insect.

Antigens prepared from venom alone are available in a few medical centers for experimental usage. These preparations are quite effective in identifying persons sensitive to the common stinging insects. (Within Texas, these include the *Polistes* wasps, honey bees, and fire ants.) Diagnosis of sensitivity can be made by (1) intradermal skin testing with venom, (2) release of histamine from blood basophils *in vitro*,[10] and (3) determination of IgE antibodies by the radioallergosorbent test.

The best method of dealing with insect bite sensitivity is, of course, avoidance of future stings. This is rarely possible, however, and susceptible persons should carry adrenalin and antihistamines. Initial studies also indicate that periodic injections of insect venom will give protection because of synthesis of IgG-blocking antibodies.

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Jaundice

Marcel Patterson, MD

The pathophysiology of jaundice is variable and understanding it will assist in diagnosis. Diagnosis of most cases of jaundice can be made by history, physical examination, and a few laboratory tests. Certain recent developments may be helpful in the solution of cases of jaundice that have been regarded as problem cases.

Jaundice in an adult is not an emergency, but when typical hepatitis lingers, important decisions must be made. If exploratory operation is performed, it must be with the realization that sick livers tolerate anesthesia and surgery poorly. To let a patient with a correctable lesion lie abed for weeks, however, is tragic. Fortunately, in most instances, a careful history and examination, including a few laboratory tests will provide an answer.

The Physiology of Jaundice

Jaundice appears when the amount of bilirubin in the blood is increased. The bilirubin in the blood results, for the most part, from the catabolism of hemoglobin—hemoglobin that is released from worn-out red blood cells as they end their life span of 120 days. This bilirubin binds tightly to albumin and appears in body fluids proportional to the albumin content of those fluids. It does not spill into the urine. The amount in normal serum is from 0.5 to 1.0 mg/100 ml.

The liver plays the major role in bilirubin metabolism. The protein-bound bilirubin enters the liver cell and dissociates from albumin. Since it is insoluble in water, it must be converted to a water-soluble compound to be excreted. This occurs by conjugation of bilirubin to glucuronide. The product of conjugation, bilirubin diglucuronide, is water-soluble. The mechanism of bilirubin diglucuronide excretion into the bile canaliculi appears to be the step which governs the rate of bilirubin metabolism and requires energy.

Theoretically, jaundice might arise from a disorder anywhere along the metabolic process, that is, from an increased load of bilirubin presented to the liver cell, from an impaired uptake into the liver cell, from a disturbance of conjugation in the liver, or from a disturbance in excretion. Excretion may be impaired anywhere from the bile canaliculi to the ampulla of Vater.

The conjugated bilirubin released into the duodenum with bile is not absorbed in the upper small intestine but is acted upon by bacteria in the lower intestine and colon. These bacteria catabolize the material to colorless urobilinogens and oxidize it further to colored urobilins. Urobilinogen and urobilins are absorbed into the portal vein and reexcreted by the liver, the so-called enterohepatic circulation of bilirubin. A small amount (4 mg/day) spills in the urine where it can be measured. Some of the urobilin (50 to 280 mg) escapes in the stool and gives stool its brown color.

Urine urobilinogen is found in all normal persons. It appears in increased amounts under several circumstances: if there is an increased load of bilirubin (as in hemolytic anemia), if the hepatic uptake mechanism is impaired (as in hepatocellular disease), or if there is increased absorption from the gut (as in gastointestinal bleeding). It may disappear if excretion of bilirubin is impaired or if antibiotics destroy the colon bacteria that reduce bilirubin to urobilin.

A simple diagnostic test in jaundice is to examine the urine for bilirubin and urobilinogen. Remember that unconjugated bilirubin, tightly bound to albumin, is not

found in urine, whereas water-soluble conjugated bilirubin may be. If a urine specimen with bilirubin is shaken, the bilirubin appears as color in the foam. Also, urine bilirubin may be detected by the Ictotest (Ames Laboratory) or the Harrison spot test. Ehrlich's aldehyde solution, added to urine, turns colorless urobilinogen red.

Serum bilirubin is measured by the Van den Bergh reactions. When the reaction is carried out in an alcohol solution, total bilirubin is measured, whereas in an aqueous solution, only the water-soluble (conjugated) bilirubin is measured. The partition into total and direct bilirubin is not chemically identical to conjugated and unconjugated bilirubin. For diagnostic purposes, we can say that conjugated hyperbilirubinemia exists if more than 50% of the bilirubin is of the direct-acting type.

Checking the urine for bilirubin and urobilinogen and measuring the serum bilirubin tells us whether a patient has unconjugated or conjugated hyperbilirubinemia.

Unconjugated Hyperbilirubinemia

Jaundice arising from unconjugated hyperbilirubinemia occurs with severe hemolysis. A normal person catabolizes 6 gm of hemoglobin to 250 mg of bilirubin daily. A healthy liver can metabolize up to six times this amount of bilirubin before jaundice appears.

Patients with unconjugated hyperbilirubinemia from an increased load of bilirubin pigment, such as occurs with hemolysis, large hematomas, pulmonary infarcts, or transfusions with old red blood cells, usually have mild jaundice, anemia, reticulocytosis, decreased haptoglobins, increased urine urobilinogen, and increased fecal urobilinogens. The transaminase enzymes and alkaline phosphatase values are normal.

When a patient with mild jaundice looks healthy and has no anemia or evidence of hemolysis (there is no bilirubin in the urine, as indicated by a negative foam or Ictotest, and the elevated total bilirubin is of the indirect type), the hyperbilirubinemia then is unconjugated. The defect must lie in uptake or conjugation, since there is no evidence of an increased pigment load. Most adult patients with unconjugated hyperbilirubinemia have Gilbert's disease. Its characteristics are mild unconjugated hyperbilirubinemia (usually < 6 mg/100 ml), often discovered accidentally, and on laboratory tests. Phenobarbital will lower the serum bilirubin and fasting elevates it. Liver function tests are normal, and liver biopsy results are normal. The disease occurs predominantly in young men and is autosomal-dominant; 10% of parents and 27% of siblings are found to have elevated bilirubin determinations. Jaundice diminishes with age. This benign condition requires proper recognition to avoid unnecessary disability from prolonged restricted activity.

Conjugated Hyperbilirubinemia

Most jaundice patients seen in clinical practice have conjugated hyperbilirubinemia; that is, bilirubin is found in the urine, and 50% or more of the elevated serum bilirubin is direct-reacting. This does not, however, identify the defect. Is it hepatocellular disease or extrahepatic obstruction?

Difficulty in making this discrimination arises because many drugs, some hepatitis outbreaks, and even cases of alcoholic hepatitis can cause cholestatic jaundice. The prominent defect appears to be at the can-

alicular level, and the clinical appearance is suggestive of obstruction. Furthermore, extrahepatic causes of jaundice, when uncorrected, cause liver damage to such a degree that tests of hepatic function yield abnormal results and then are of no help in the differential diagnosis.

Most cases of medical jaundice are caused by viral hepatitis, drugs, or alcohol, whereas surgical jaundice arises most often from cancer of the pancreas and less often from common duct stones.

In general, with hepatocellular disease, maximum liver damage occurs shortly after injury, whereas in obstructive jaundice, liver functions may be mildly deranged early in the course, but worsen with time. Usually, hepatocellular damage, from whatever cause, will be accompanied by constitutional symptoms—malaise, anorexia, lassitude, lethargy, and aversion to tobacco. In contrast, symptoms of obstructive jaundice arise insidiously and, except for weight loss, may not be apparent until late.

Hepatitis B antigen (HB Ag or Australia antigen) can be detected by laboratory tests during the incubation period and early phases of the illness. Within 3 to 12 weeks, however, it tends to become undetectable, so it should be sought early in all cases of jaundice. Its detection aids enormously in the diagnosis of hepatitis B (serum hepatitis).

Hepatitis A (infectious hepatitis) is primarily a disease of children and young adults. Although cases do occur sporadically in adults, such a diagnosis should be made with caution when the HB Ag test is negative. Furthermore, there is increasing evidence that a non-A and non-B hepatitis is the more common type of hepatitis in adults and following administration of blood or blood products.

Chronic Active Hepatitis

Patients with hepatitis should be on the way to recovery in two months. If jaundice and enzyme elevations persist, the physician needs to reassess his diagnosis. Specifically, chronic active hepatitis, which is a progressive and destructive liver disease with a prolonged and insidious course, must be considered. The histologic appearance is of liver cell necrosis, bridging, and chronic inflammation that if untreated may lead to postnecrotic cirrhosis and death. Many of these patients have altered immunologic reactions, such as a false-positive test for syphilis, positive lupus erythematosus cell preparations, as well as positive antinuclear, smooth muscle, and antimitochondrial antibodies. Again, we may find hypergammaglobulinemia, polyarthritis, pleurisy, and nephritis. The diagnosis is established with a liver biopsy.

Postnecrotic Cirrhosis

Patients with postnecrotic cirrhosis often go unrecognized until jaundice appears. The process is so insidious that no one recognizes its presence until decompensation occurs, perhaps with the stress of a surgical procedure or trauma or intercurrent infection, and sometimes an otherwise innocuous drug precipitates liver failure. The cause of the cirrhosis may not be apparent. A careful physical examination may reveal clues to chronic liver disease. On laboratory examination, transaminase enzymes may be elevated only slightly or not at all. Usually, the serum albumin level is low and the prothrombin time prolonged. A liver scan may reveal a poor and patchy uptake of the isotope in the liver, with the material concentrated in the bone marrow, and an enlarged spleen.

Drug-Induced Liver Disease

Many drugs and chemicals are metabolized to a water-soluble state by the liver so that they may be excreted by the kidney. It is not surprising that in this metabolic work the liver may be damaged. In the past, the damage was explained as the result of direct

toxicity, idiosyncrasy, or allergy. Now it appears that with some drugs, such as acetaminophen (Tylenol), acetanilid (Antifebrin) and furosemide (Lasix), chemically reactive metabolites may be formed. These metabolites bind to liver cells and cause cell death. In other instances, it appears that combinations of drugs alter metabolic pathways, either by inducing or inhibiting enzymes. Obviously, patients take combinations of drugs whose combined effects on the liver are totally unknown.

Drug reactions may be classified as hepatitis-like syndromes, cholestatic syndromes, and a mixed group, which have features of hepatitis and cholestasis. Many of these syndromes are indistinguishable from viral hepatitis or other cholestatic states. Skin rash, fever, and eosinophilia, the hallmarks of allergy, are uncommon. Even with tissue to examine, the pathologist may not be able to make an etiologic diagnosis, particularly with damage caused by halothane, isoniazid or methyldopa.

All medications must be considered in an evaluation, as well as exposure to chemicals such as solvents, dyes, and sprays. On occasion, innocuous agents in nontoxic amounts, in combination, may damage the liver. Challenging the patient with a small dose of a drug and observing for hepatic injury seems the only way to prove hepatotoxicity, but the associated risk discourages most physicians from attempting this sort of test. The ubiquitous birth control pill should not be overlooked. In a recent clinical experience, one prolonged case of hepatitis in a young woman cleared immediately when the pill was stopped. Liver symptoms arising from these drugs are well documented.

Alcoholic Cirrhosis

The most used and abused drug in our society producing liver damage is alcohol. Strangely, only one out of ten alcoholics develops clinical liver damage, and yet liver damage from alcohol is being discovered increasingly in persons not thought of as alcoholics. Not all alcoholics with jaundice should be assumed to have alcoholic liver disease, and more important, alcohol injury should be considered in every patient with jaundice whether the patient is friend, colleague, or civic leader.

Alcoholic liver damage does not occur overnight, but there is good evidence that five to ten stiff drinks a day can produce damage in a matter of weeks, regardless of how well one eats. The patient with pronounced hepatomegaly from fatty infiltration presents a difficult diagnostic problem. In some of these patients, clinical and laboratory determinations (aside from jaundice and an elevated alkaline phosphatase) may not be helpful; enzyme determinations may be normal or only slightly deranged. Other results of liver function tests are often normal. By causing hemolysis, alcohol may further increase the bilirubin load and make the jaundice more striking. It is easy to believe that extrahepatic obstruction is responsible. Such patients, after a reasonable period of observation, will require a more definitive test, such as liver biopsy, for a diagnosis. In general, surgical exploration is tolerated poorly by these patients.

Diagnostic Tests

Regrettably, in problem cases, findings from laboratory tests may be equivocal. An elevated alkaline phosphatase level may indicate obstruction, abscess, metastatic liver disease, or occasionally fatty infiltration. A low albumin and a high gamma globulin suggest chronic liver disease or severe liver cell damage, as does a prolonged prothrombin time unresponsive to vitamin K injections. Of course, a severe elevation of enzymes indicates hepatocellular disease, but often the enzymes are increased to only borderline amounts. Liver tests repeated at intervals are more helpful than any single test or a battery of tests.

Oral cholecystography or intravenous cholangiography usually does not help in the jaundiced patient because the dye is not excreted. A roentgenogram of the abdomen, or a gastrointestinal series, may give indirect evidence of gallbladder or pancreatic disease. A liver scan helps in delineating the size of the liver and the presence or absence of filling defects. Unfortunately, regenerative nodules in cirrhosis may look like metastatic nodules. In this circumstance, the presence of a prominent and enlarged spleen, as well as isotope concentration in the bone marrow, suggests severe cirrhosis. A rose bengal sodium I 131 scan helps differentiate cellular damage from obstruction if the dye spills into the duodenum. Indium 111 scans help differentiate cancer and abscess from cirrhotic nodules.

A new technique, ultrasound scanning, appears promising. The gallbladder with stones can be recognized, as can dilated intrahepatic ducts. It is predicted that this test will be widely used in the study of patients with jaundice, particularly since it is painless and noninvasive.

Needle biopsy of the liver is most useful in the differentiation of chronic active hepatitis from chronic persistent hepatitis, hepatitis from cirrhosis, cirrhosis from malignant liver disease, and viral hepatitis from alcoholic hepatitis. Also, biopsy helps in the diagnosis of obscure systemic disease, such as granulomas, and in diagnosis of metastatic neoplasm as well as hepatomegaly of unknown cause.

Low morbidity and mortality from this procedure can be expected when it is done by an experienced physician. Biopsy should not be done if results of a one-stage prothrombin time test are greater than 50% of the control test, if there is severe thrombocytopenia, if partial thromboplastin time is unduly prolonged, if there is recognized cholangitis, if there is tense ascites or profound anemia, or if blood is unavailable for transfusion. Often, the result of needle biopsy of the liver is disappointing in diagnosis of jaundice.

Transhepatic cholangiography with or without the Chiba (skinny) needle provides more information and is preferable to liver biopsy if extrahepatic obstruction is suspected. The contraindications are the same in both procedures. Another way of visualizing the biliary tract as well as the pancreatic ducts is by retrograde filling through a cannula introduced via the fiberoptic duodenoscope (often called ERCP—endoscopic retrograde cannulization of the pancreas). This procedure is technically difficult to perform and not widely available, but with time it should be.

The patient with jaundice continues to be challenging. In most instances, we accurately diagnose the problem by a careful history and physical examination and a few selected laboratory tests. If the answer is not readily apparent or jaundice persists, new diagnostic tools are available to help us find a diagnosis in almost every case.

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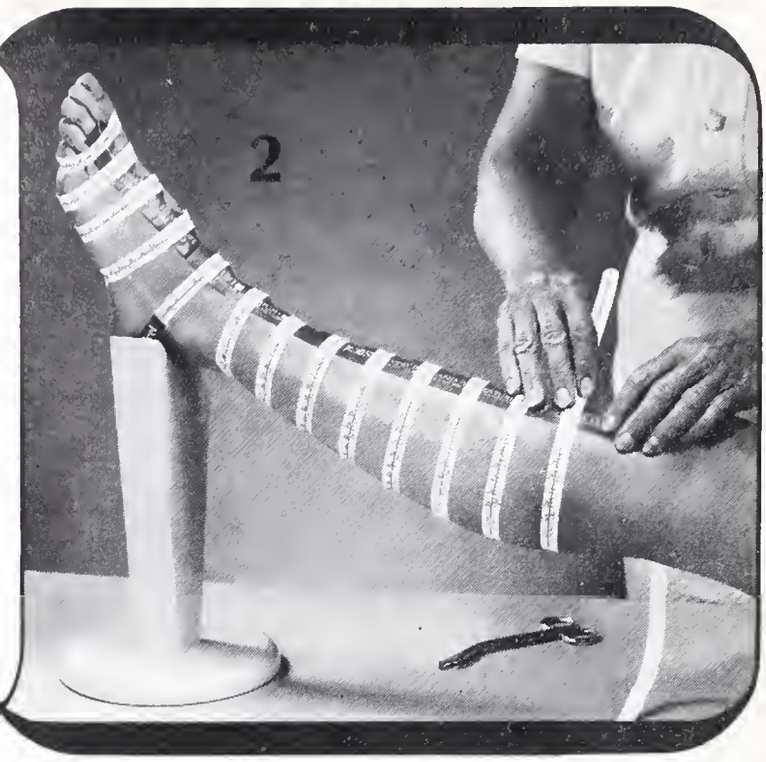

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Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

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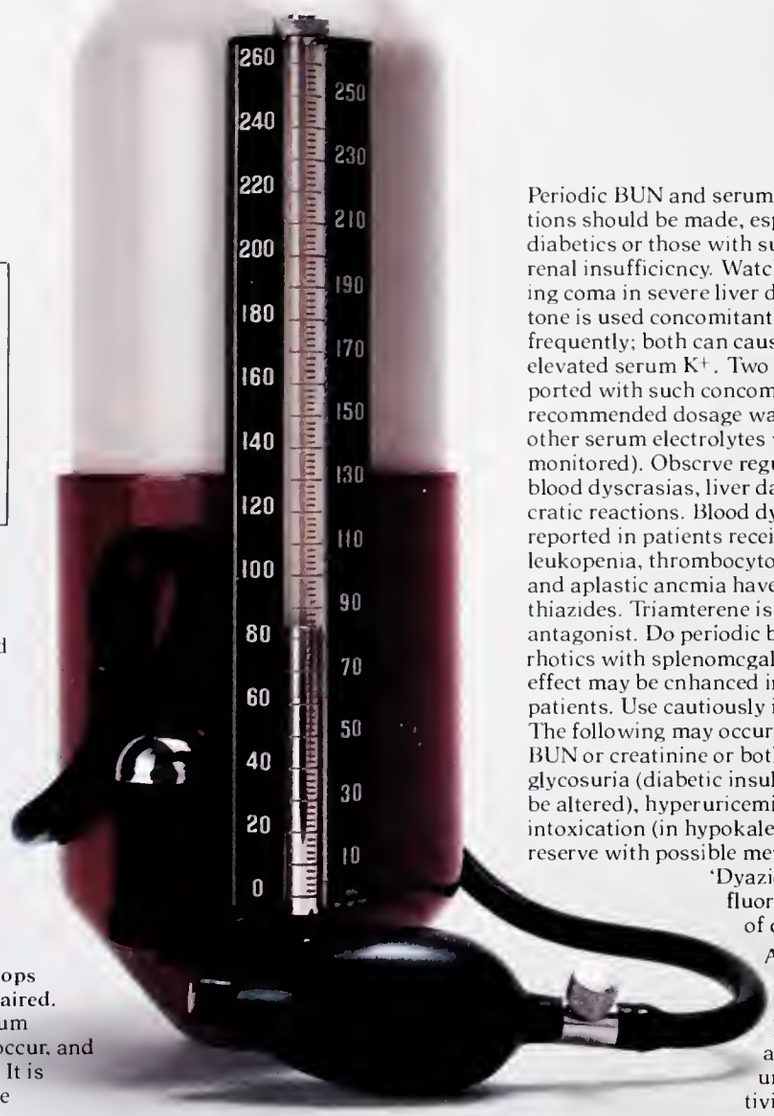

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* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

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Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

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Home therapy for hemophilia

Ronald S. Weinger, MD; Philip L. Cimo, MD

Hemophiliacs may now expect to live relatively normal lives. Recent advances in blood product preparation, increased understanding of factors which influence hemophiliac bleeding, and the improved technology of home therapy can limit the morbidity of these disorders.[1-3] Well-managed hemophiliacs attend school and summer camps, hold productive jobs, and participate in social and athletic activities with increased self-confidence.[4-6] This improvement in life style is partially related to the ability of patients to accept an increased responsibility for some of the day-to-day management of their problems.

Home therapy for hemophilia has a long history in Texas. In 1961, Richard Halden, MD, of Fort Worth started one of the first programs in the United States.[7] Since that time other successful programs have been established throughout the United States.[4,5,8,9] Patient involvement in the management of chronic illness is not without precedent in medical care. The value of self-administration of insulin by diabetics and home dialysis for patients with chronic renal failure is well recognized.[10] The important common denominator for all such programs is close medical supervision.

Components of a Home Care Program

Home therapy necessitates that both patient and physician accept certain new responsibilities. It is essential that all concerned understand the potential benefits as well as the potential risks. Home therapy should never be perceived as a replacement for comprehensive care. This concern has prompted the Medical and Scientific Advisory Council of the National Hemophilia Foundation (1974) to suggest that the following steps be carried out before initiating such programs:[11]

1. The physician responsible should be educated in the indication for, the technology, and the hazards of such a program.
2. The patient must be carefully screened to determine if he and his family satisfy the medical and psychiatric criteria for entering such a program.
3. The patient and his family must be trained by competent personnel in the techniques of handling the therapy.
4. Both doctor and patient must recognize that home therapy is but one aspect of the treatment of hemophilia.
5. The patient must maintain close contact with the physician as to the frequency of treatment, needs, and any adverse reaction that he may have to the program.
6. Lastly, thorough record-keeping is essential and is strongly urged.

Hemophilia is a relatively rare disorder (25,000 patients treated in the US in 1970-1971) and consequently many physicians are unexposed to its care. Of those physicians who do treat hemophiliacs, nearly 60% treat only one patient per year.[12] These considerations, the time required to properly orient patients to the home therapy regimen, and the requirements for comprehensive follow-up have stimulated the establishment of hemophilia centers throughout the United States. Ideally, each center functions as a consultative resource to local health providers in the care and diagnosis of hemophilia. They also can provide the required patient screening and supervision of home programs.

Texas has two established Comprehensive Hemophilia Centers—the Gulf States Hemophilia Center in Houston and the South Texas Hemophilia Center in San Antonio. Both are affiliated with the University of Texas.

Essential elements required to provide this comprehensive care and to supervise

home therapy successfully include: (1) adult and pediatric hematologists, (2) an orthopedic surgeon, (3) a trained nurse-clinician, (4) social service support, (5) a physical therapist, (6) a psychiatric liaison-consultant, (7) a quality hemostasis laboratory, (8) appropriate blood bank and pharmacy facilities, and (9) dental consultation.

Institution of Home Care

Patients who are to be considered for a home care regimen are seen by all members of the hemophilia team. Each patient is interviewed and examined, independently, by a pediatric or adult hematologist, orthopedic surgeon, and physical therapist. The family and patient are interviewed by the center's nurse clinician and social worker. Appropriate laboratory tests are ordered to document the diagnosis and rule out an acquired inhibitor to the deficient clotting factor.

The patient should be of sufficient age so that venipuncture is relatively easy and he is able to cooperate with the family member performing the infusion. The presence of a clinically significant inhibitor may contraindicate home therapy. If the hemophilia team agrees that the family and patient have the proper intellectual and emotional capacity, the desire, and willingness to cooperate with follow-up requirements and have adequate financial support to cover outpatient blood products, education in home care is begun.

1. Nurse-clinician instructs patient in techniques of self-infusion. The nurse plays a major role in the education of the patient and his family.

Patients and designated family members attend educational sessions with the supervising hematologist, nurse clinician, physical therapist and, when indicated, the social worker. This staff instructs patients as to the indications, difficulties, risks, and techniques of home care. Strongly emphasized are those emergency situations when direct physician involvement is required. The use, handling, and storage of blood products is carefully explained. When fresh frozen plasma or cryoprecipitate is used, the proper methods of storage are stressed.[13] The physical therapist gives instruction in the management of acute hemarthrosis and the techniques of home physical therapy. When the nurse clinician and physician are convinced that the patient and all concerned family members fully understand home therapy, can successfully perform venipuncture, and can maintain proper records, home care is started.

Close follow-up is essential in assessing the success or failure of therapy, the need to change or modify treatment plans, and the effects of the self-administration upon family life, school or job attendance, and social adaptation. We feel strongly that all individuals in home care programs should receive, as a minimum, the following:

1. Biannual physical examinations
2. In the pediatric patient, biyearly screening for the development of an inhibitor; yearly in the adult
3. Annual orthopedic evaluation with assessment of joint, muscle, and nerve function; radiologic assessment as indicated by the clinical situation
4. Annual serum enzyme determinations, complete blood count, urinalysis
5. Biannual interview and review of techniques with the nurse-clinician and physical therapist
6. Visit with social worker, medical ge-

neticist, or vocational counselor as indicated by patient need

Results

Patient compliance in maintaining physician contact has been good. Levine[2] reported 100%, and Hilgartner[5] 90%, patient cooperation. In the New York series, appropriate records were maintained accurately by 90% of the patients.[5] Some patients have initial difficulty with the performance of venipuncture, but in the two reported series where this was investigated, the problem arose less than 2% of the time.[4,8]

Progressive arthropathy, as measured by range of motion, radiologic and orthopedic evaluations occurred in 12% of the New England[2] patients and 10% of those in New York.[5] This compares to a 90% rate of progressive arthropathy in a prehome therapy period. Rabiner's results are consistent with these findings, as in his population, the number of new joints involved per year averaged 0.1 ± 0.3 compared to 1.7 ± 1.3 during his control period ($p < 0.05$).[4]

Improvement in life style is suggested by subjective and objective data. School attendance improved[2,14] and the number of hospitalizations and days spent in-hospital decreased rather dramatically.[2,4,15] In addition, when patients receiving therapy at home were offered the opportunity to return to office-based or emergency room care, they refused.[8]

Blood product usage has not increased significantly. Surprisingly, Levine found that the mean number of infusions per year decreased from 32.8 to 27.9 per patient ($p < 0.05$).[2] Rabiner[4] demonstrated a slight increase in blood factor consumption, but this did not reach statistical significance. This discrepancy probably reflects the fact that Dr Rabiner's patients now infuse themselves for bleeding episodes that they would have ignored previously.

One important result of home therapy is the observed decrease in cost of care. The Massachusetts group reported an almost 45% reduction in the yearly expenses incurred per patient. This drop in medical expenses is primarily related to the fall in physician fees, office charges, inpatient expenses, and emergency room visits. The total cost of plasma products remained approximately the same.[2]

Experience at the Gulf States Hemophilia Center is similar to that described from other areas of the country. More than one-half of patients with severe or moderate hemophilia who have undergone comprehensive evaluations are now in a home program. As yet, no major adverse effects of these programs have been observed. Patient compliance in follow-up and record keeping has been good. However, our patients who are in a home program use more therapeutic products than those in non-home programs. This is related to earlier and more frequent infusions. Whether this increased consumption of therapeutic materials will be reflected in a reduction in morbidity and have a decrease in total cost of care is yet to be determined.

Discussion

Home therapy is not the complete answer to the care of the hemophiliac. It does, however, provide an opportunity for some patients to rely more on themselves and less on established health care facilities. It does not replace good, comprehensive medical care. The potential benefits to appropriately screened and educated patients may include increased social mobility, decreased orthopedic disability, increased self-confidence, and less total cost of care. Such programs may play a role in reducing the

2. The social worker aids families and patients with social difficulties resulting from hemophilia. She works to identify those problems which might interfere with achieving maximum health care.

rising costs of medical care and alleviating the overload on medical facilities.

As in all forms of medical therapy, there are shortcomings and risks. Training patients to care for themselves at home, successfully and safely, requires a team of medical and paramedical specialists. The tremendous cost of care and the failure of many third-party agencies to recognize these medically supervised patient-administered programs can limit their effectiveness.

The potential danger of poor patient follow-up and patient delay in seeking expert medical attention is of real concern. Patient failure to recognize those situations which cannot be safely and successfully managed at home may increase morbidity in some cases. Alternatively, the early recognition and treatment of life-threatening hemorrhages has saved lives.[16]

There exists a risk to the nonhemophiliac family members. Blood product transmission of hepatitis due to inadvertent needle inoculation occurs.[2,5]

Poor selection of patient-families may place them in difficult emotional situations. Rather than decreasing dependency and passivity, Fajardo[17] describes two cases where paradoxical responses developed during home care. In rare situations, treatment or the withholding of treatment by parents has been used as a form of punishment. The potential for damage to a child from an indifferent or rejecting parent may be magnified in the home care situation.

Earlier fears were that increased use of blood products and an increased incidence of inhibitors and medical nihilism would result from such intensive treatment programs. This has not materialized. Blood product use, if increased, has not appreciably changed the demands on local or national blood resources. Perhaps this reflects the success of early, aggressive infusion therapy upon the prevention of long-term disabilities and complications. Providing effective, low-cost care in the home instead of in emergency rooms and physicians' offices is the goal of these supervised, patient-administered programs. The future is bright.

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Location of residency: analysis of a critical determinant in keeping physicians in Texas

Constantine Stefanu, PhD; Mary L. Pate, MS

A study of the 1961-1970 graduates of the Southwestern Medical School of The University of Texas Health Science Center at Dallas was conducted to explore the hypothesis that the location of a physician's residency training program strongly influences the state in which he or she will practice medicine. The analytical results of the project support the conclusion that additional residency positions in Texas would aid in the elimination of the current physician shortages within the state.

Keeping physicians after they complete their medical training is a serious concern for public officials and medical educators in Texas and throughout the United States. Various concepts have been presented to identify factors influencing the maldistribution of physicians, but the problem has not been remedied. While physician disparities have been examined according to type of medical practice as well as urban-rural settings, primary focus must first be placed at the state level. Graduates of The University of Texas Southwestern Medical School at Dallas during a ten-year period were studied to identify any parameters associated with the physicians' staying in Texas.

Others have examined the question of where medical school graduates practice, and factors related to the selection of rural or metropolitan areas have been fairly well identified.[1,2] Other attempts to itemize variables which tend to influence practice location decisions also have been documented.[3,4] In addition, models have been designed to predict within a specified level of probability the eventual geographic distribution of a group of medical students based upon a combination of parameters.[5,6] Furthermore, disproportionate numbers of physicians delivering primary or specialty medical care have been reported in the past year.[7,8] Previous researchers have addressed the matter of attracting an adequate number of physicians to a specific area by studying a group of causative factors. We feel that an in depth statistical assessment of at least one of these variables could provide additional insight regarding the problem.

It is well documented that Texas suffers from a shortage of physicians whose primary activity is direct patient care.[7,9] Therefore, it is even more critical that an adequate reserve of physicians be established. This requires the development of programs to prepare additional physicians to practice in certain areas of the state or to deliver particular types of patient care. A project was initiated at The University of Texas Southwestern Medical School at Dallas to analyze one major factor associated with the geographic distribution of the school's graduates. The hypothesis was that the physician's residency location influences the choice of the state in which he or she will practice medicine. We hope that the results of this project will provide a statistical basis for the critical evaluation of the influence of residency training programs on the retention of physicians within Texas.

Methodology

Basic data were collected about all graduates of The University of Texas Southwestern Medical School at Dallas from 1961-1970. Information concerning location of their residency training and their current place of practice was gathered from the AMA Physician Masterfile, 1976. The registrar provided facts pertaining to the state of origin of each person. The 1961 through 1970 group was selected for the study in order to create a descriptive profile of the

recent residency training and medical practice characteristics of the medical school graduates. Post-1970 graduates were not included because many of them were still in residency programs. During the study period, approximately 89% of the medical school graduates entered a residency program, which made it possible to generate sound statistical information. Thus, the influence of the location of residency training on the physician's eventual decision about where to establish a medical practice could be examined more fully.

The members of each graduating class were categorized according to selected criteria. The initial data screening techniques indicated that the information was incomplete for 27 individuals, or about 3% of the 1961-1970 alumni. Since these persons represented such a small part of the total group, they were eliminated from the analysis. The first division of the subjects was based upon whether or not Texas was their home state. This determination was made according to where a person attended high school. (In less than 15 cases, individuals were certified to be residents of Texas through criteria established by the medical school's admissions committee.) Southwestern Medical School, a state supported institution under legislative mandate, accepts at least 90% of its entering class from applicants classified as Texas residents. The study subjects were then grouped according to whether or not their residency had been in Texas or another state. In the final classification, the two subsets were composed of persons practicing in Texas and those practicing elsewhere. By holding other variables constant, it was statistically possible to determine the influence of the subjects' residency location on the state in which they eventually chose to practice medicine.

1. Frequency distribution of 1961-1970 Southwestern Medical School alumni whose home state is Texas.

	Alumni Who Entered Residencies in Texas			Alumni Who Entered Residencies Out of Texas		
Year of Graduation	Number Of Alumni	Number Practicing in Texas	Percentage Practicing in Texas	Number Of Alumni	Number Practicing in Texas	Percentage Practicing in Texas
1961	44	36	82	26	8	31
1962	41	36	88	21	9	43
1963	47	43	91	23	10	43
1964	44	34	77	24	14	58
1965	50	42	84	23	5	22
1966	43	37	86	20	8	40
1967	57	46	81	28	7	25
1968	44	34	77	29	10	34
1969	41	35	85	24	7	29
1970	37	25	68	25	4	16
Total	448	368	82	243	82	34

The alumni who served an internship but no residency were omitted from this report. This group was so small that meaningful data in the subcategories discussed earlier could not be generated. However, information which was compiled about the group did tend to support the hypothesis that most of the physicians participating in even one year of postgraduate training in Texas stay here to practice. (Additional information will be provided on request.)

Frequency tabulations and appropriate percentage values have been calculated for each of the major study categories. Basic statistics of proportion were also applied for comparative purposes. In addition, we performed Chi-square tests to determine if the distribution of the study subjects differed from a predetermined theoretical distribution. For the out-of-state group, the Chi-square test was modified by including Yates' correction factor for continuity.

Results

The study provided distributive information which strongly indicates that a high degree of association exists between taking a residency in Texas and remaining to practice medicine in the state. Fig 1 gives data regarding the 1961-1970 alumni who were classified as residents of Texas. The percentage of graduates who entered residency programs in Texas and have located in the state is 82%—vastly greater than the proportion (34%) of those who pursued their graduate training elsewhere and returned to Texas.

Fig 2 gives data about residency and practice location of subjects who were not classified as Texas residents. Since the number of individuals in each study year was small, the alumni were grouped into two five-year categories for analysis. Seventy-three percent of the persons who pur-

2. Frequency distribution of 1961-1970 Southwestern Medical School alumni whose home state is not Texas.

	Alumni Who Entered Residencies in Texas			Alumni Who Entered Residencies Out of Texas		
Year of Graduation	Number of Alumni	Number Practicing in Texas	Percentage Practicing in Texas	Number of Alumni	Number Practicing in Texas	Percentage Practicing in Texas
1961-65	25	19	76	31	8	26
1966-70	12	8	67	19	3	16
Total	37	27	73	50	11	22

sued graduate training in Texas decided to establish a practice in the state, while only 22% of those who took residencies in other states have returned to Texas. Therefore, even a preponderance of the Southwestern graduates whose home state is elsewhere have remained in Texas to practice medicine when they entered residency programs within the state. However, when these alumni leave the state for their graduate training, the probability of their relocating in Texas is relatively small.

Fig 3 analyzes practice location decisions of alumni from Texas, while Fig 4 gives the same data about persons classified as out-of-state residents upon admission into medical school. The data are in a 2 x 2 table with stratifications according to location of residency and place of practice. In order to evaluate the disparity between alumni who pursued graduate medical training in Texas and those who left the state for this purpose, a Chi-square test was applied. The resultant Chi-square values of 162.5 ($p < .001$) in Fig 3 and 20.3 ($p < .001$) in Fig 4 show the vast difference in the geographic distribution of the groups. In both cases, the number of graduates who entered residency programs in Texas and now practice here is significantly higher than the number currently located in Texas who went to another state for graduate training. The results shown in all four charts statistically support the hypothesis that location of residency programs plays a decisive role in the retention of graduates of a Texas medical school.

Conclusions

The results of the study strongly corroborate the recommendation of the Ad Hoc Committee on Graduate Medical Education of the Texas Medical Association.[7] If public officials realistically propose to increase the number of physicians practicing in Texas, the number of residency positions available in the state should be increased. Further, as new residencies are established, constant attention should be given to attracting highly capable men and women to fill the positions. Since the outstanding graduates gravitate to centers of excellence, they can be attracted by expanding residency programs affiliated with accredited medical schools. In this manner, the health care delivery system can be maintained by attracting and keeping qualified physicians within the state.

The enrollment of medical students in The University of Texas System alone has increased from 992 to more than 2,114 since 1966.[10] However, results of our re-

3. Chi-square analysis of Southwestern Medical School alumni whose home state is Texas.

	Alumni Who Entered Residencies in Texas		Alumni Who Entered Residencies Out of Texas		Total
	Number	Percent	Number	Percent	Number
Alumni Practicing In Texas	368	82	82	34	450
Alumni Practicing Out of Texas	80	18	161	66	241
Total	448		243		691

$x^2 = 162.5$, $p < .001$

search indicate that unless residency positions in Texas are available for these individuals, the population-to-physician ratio will not necessarily be reduced. Increasing the number of residency positions to approximately the number of Texas medical school graduates, as suggested by the TMA's Ad Hoc Committee on Graduate Medical Education, should relieve the current shortage of physicians in Texas. Therefore, one way to eliminate the physician shortage is to increase state funding for graduate medical education. Furthermore, by creating more residency positions in areas of primary care, physicians could be attracted to Texas to deliver this vital service. Expansion with priority given to the specialty areas in which the need is the greatest would provide Texans with a better than average population-to-physician ratio. Therefore, with continued financial support from the Legislature, the desired increase in the number of physicians as supported by the Texas Medical Association could be achieved during the next decade.

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4. Chi-square analysis of Southwestern Medical School alumni whose home state is not Texas.

	Alumni Who Entered Residencies in Texas		Alumni Who Entered Residencies Out of Texas		Total
	Number	Percent	Number	Percent	Number
Alumni Practicing In Texas	27	73	11	22	38
Alumni Practicing Out of Texas	10	27	39	78	49
Total	37		50		87

$x^2 = 20.3$, $p < .001$

TMA's new president: "Physicians must do more than just care for patients"

When Mylie Durham Jr, MD, Houston, assumed the presidency of the Texas Medical Association May 13, he assumed the responsibility of controlling the gamut of the Association's affairs for the next year.

Although that job might prove to be an awesome task for many, that job is something Dr Durham began preparing for more than 30 years ago when he began his service in Texas medicine.

"During my year as president, I hope to accomplish better communication and understanding between the grass roots physicians and the Texas Medical Association," Dr Durham said, "and to create a better line of communication between hospital medical staffs and the Texas Medical Association.

"I hope to lead a unified front against national health insurance and against the ever increasing third party control of medicine. I want to lead a front for more effective medical liability legislation and, of course, for effective cost control and cost effectiveness in the everyday practice of medicine," he said.

Mylie Durham, Jr, MD, TMA's new president, addresses a session during TMA's January meeting in Austin.

"With hospital medical staff relations, I hope to create a better working relationship between the hospital medical staffs and the Texas Medical Association. I want to promote an awareness that TMA has an area of responsibility to hospital medical staffs. Perhaps we can provide some possible solutions to common problems."

American medicine faces some very critical issues, Dr Durham said. These include ever increasing fragmentation of the doctor-patient relationship and fee for service concepts, cost containment and cost effectiveness, access to health care, national health insurance, third party control of medicine in all areas, health planning measures, and professional liability of physicians.

"Regarding the problem of physician distribution, I don't know of a total answer at this time," Dr Durham said. "I feel a partial answer is emphasis on education of more family practitioners and education of the public to make better use of the physicians and facilities available somewhere in their area.

"I feel physicians can best deal with increasing government controls by becoming unified. Physicians must do more than just care for patients. Physicians must become active and be participating members of the local, state, and national medical organizations. They must join the political action committees and strive to elect government officials to properly represent medicine.

"They should become aware of their own

civil rights, and remember that physicians do have civil rights just like every other American," Dr Durham said.

That involvement should begin when a physician is young. "Become interested early in medical school," he said. "Seek entrance to organized medicine as student members, then join county, state, and national associations immediately upon becoming eligible. Interest must develop fully, knowing it is a time consuming and often thankless job—but a most important step to take," Dr Durham said.

The public has a very definite part to play in its own medical care, Dr Durham said. The public should become better educated in preventive health measures. They should know and practice good basic health measures such as proper exercise, good nutrition, and moderation in indulgences. They should strive for classes in preventive health care in public schools and for instruction at qualified adult centers.

TMA's new president, Mylie Durham, Jr, MD, listens to a speaker during a TMA meeting.

Background

Dr Durham is the son and the brother of physicians. His father, Mylie E. Durham Sr, MD, now deceased, established Durham Clinic and also helped set up Heights Hospital in Houston. His brother, Charles A. Durham, MD, is now deceased.

His decision to become a physician came early in life—about junior high age. "Love, respect of, and close association with my physician father probably influenced the decision more than anything else. However, the deep loyalty and devotion exhibited to my father by his patients, plus the dedication of my mother to the profession, also likely contributed to the decision," he said.

Dr Durham is a native Houstonian born and reared in the Houston Heights. He now practices medicine one block from the house in which he was born.

He received his BA degree from Baylor University in Waco in 1940, and his MD degree from The University of Texas Medical Branch in Galveston in 1944. Dr Durham took his internship and surgical residency at Jefferson Davis Hospital in Houston.

He entered private practice as a general practitioner in Houston where he remained from 1946-51. He served as a Captain in the US Army Medical Corps from 1951-53. He re-entered private practice as a general practitioner in Houston in 1953, and in 1957, he began a general surgery residency at Hermann Hospital in Houston. He has been in private practice as a general surgeon in Houston since 1961.

Dr Durham has been a member of the Harris County Medical Society, the Texas Medical Association, and the American Medical Association since 1944. He has served on many committees of the Harris County Medical Society and was elected president in 1966.

He has served the Texas Medical Association in many capacities. He has been a member of the TMA Council on Medical Jurisprudence (now the Council on Medical Legislation), the TMA Executive Board, the TEXPAC board, and other committees.

Dr Durham has also been involved in work with hospitals. He was chief of staff of Heights Hospital for two terms. He was a member of the Board of Managers of Jefferson Davis Hospital from 1963-65, and was the first physician to serve as a member of the Board of Managers for the Harris County Hospital District, from 1967-71. He was chairman of the board from 1968-70.

During his term as chairman, neighborhood health clinics expanded from one to four, and others were being planned. Both Ben Taub and Jefferson Davis Hospital were also being expanded.

Dr Durham isn't the only member of his family active in organized medicine. In May his wife, Patricia Durham, began her year's term as president of the TMA Auxiliary.

Mrs Durham says of her husband, "He has always put the patient and the patient's needs first. I have never known him to slight an obligation to a patient, or to the profession he loves and respects so highly. He always feels honored when a patient chooses him as a doctor, and he feels sincerely honored to be able to work for organized medicine."

The Durhams have two sons. Mylie E. Durham III now resides in California, and Joseph G. Durham lives in Houston with his wife, Kathy.

The year ahead

As he begins the year ahead, Dr Durham says he hopes that Texas physicians will remember his year as TMA president as a year of unity among Texas physicians—a year of coordinated, increased involvement of more Texas physicians, especially younger members, all working to accomplish the priority goals of TMA.

"During my year as president-elect of TMA, I have been amazed and gratified at the total commitment of so many TMA members. They frequently travel great distances at their own expense, and they give unselfishly of their own time and talent to work for TMA and for medicine."

MEDICINE AND THE LAW

TEXAS ATTORNEY GENERAL RENDERS OPINION ON CLINICAL LABORATORY BILLING ACT, HB 1309

HB 1309 was passed by the 65th Texas Legislature and became effective June 15, 1977. This bill became Article 4447s VTCS. The act states, "No person licensed in this state to practice medicine, dentistry, podiatry, veterinary medicine, or chiropractic shall agree with any clinical, bioanalytical, or hospital laboratory, wherever located, to make payments to such laboratory for individual tests, combination of tests, or tests series for patients unless such person discloses on the bill or statement to the patient or third party payors the name and addresses of such laboratory and the net amount or the amount paid or to be paid to such laboratory for individual tests, combination of tests or tests series."

The act also states: "The board or agency responsible for licensing and regulation of persons practicing medicine, dentistry, podiatry, veterinary medicine, and chiropractic, in addition to other authority granted, may deny an application for license or authority to practice for violation of Section 1 of this act."

The Texas State Board of Medical Examiners held a public hearing on Sept 25, 1977, to receive testimony from licensees, professional associations, and individuals, including consumers, who wished to comment about interpretation or enforcement of the law.

After that hearing on Nov 30, 1977, Max C. Butler, MD, president of the Board of Medical Examiners, asked the Texas Attorney General for guidance in answering five questions.

Attorney general's response

Attorney General Opinion No. H-1143 was issued in response to those questions on March 24, 1978.

Following are the Board of Medical Examiners' questions and the Attorney General's answers:

Question: Does the act apply to a professional association (organized under the provisions of Article 1528f, VACS, the Texas Professional Association Act), to a partnership or other organization of physicians, or other licensees designated in the act, or is the act applicable only to individual "persons licensed to practice" the various professions? In this regard, testimony reveals (at public hearing) that many medical practices are organized in a variety of different ways with billing by practitioners through the clinic office and not in the name of the individual physician who may have rendered the medical service.

Answer: An organization cannot be licensed in this state to practice medicine. The individual physicians who make up the organization, however, are subject to the provisions of the statute if that association agrees with . . . any laboratory . . . to make payments to such laboratory for . . . tests . . . for patients. Article 1528f, the Professional Association Act, specifically provides in Section 6 that a licensed individual employed by a professional association "shall remain subject to reprimand or discipline for this conduct." It would appear, therefore, that while a professional association or other organization of physicians need not comply with Article 4447s, the professional members of that organization are subject to its terms.

Question: Must the disclosure required in the act be made by physicians to their patients where specimens are sent for analysis to laboratories owned by the physician or physician group which obtain the speci-

men or to laboratories which are cooperative in nature owned by several different groups of physicians but which accept specimens for analysis only by those physicians or physician groups which have an ownership interest in the laboratory? Testimony revealed that a variety of types of ownership of laboratories exist in this state, and most physicians consider such laboratories to be an extension of their private office, even though the laboratory itself may be organized as a separate entity. Some physician owners of laboratories pay over to the laboratories amounts based upon the number of tests submitted by the physician owner's office in a month's time, with profits, if any, divided among the various owners of the laboratory on a periodic basis. Other arrangements exist whereby the payment to the laboratory is made only on the basis of expenses incurred by the laboratory without direct correlation between the number of types of analytical tests performed by the laboratory.

Answer: The statute makes clear that it applies to any agreement with any . . . laboratory, wherever located . . . So long as the laboratory is organized as a separate entity we believe that it falls within the meaning of Article 4447s.

Question: Could the required disclosure be accomplished by a statement indicating a percentage of the total amount charged for laboratory services was paid to the named laboratory, without specifying the dollar amount paid? Testimony revealed that some arrangements exist whereby the laboratories pay the set percentage of the total charge made to the patient for a laboratory service with the remainder obtained by the physician's office for expenses incurred in drawing or obtaining the specimen, handling, mailing and interpretation of the raw data received back from the laboratory. While such a statement of percentage of a dollar amount would not state the exact "net amount," the patient could easily calculate the exact amount which had been paid and the effect of such would accomplish the apparent legislative intent that physicians or other practitioners disclose amount paid to outside laboratories.

Answer: The statute requires that the patient's bill disclose the "net amount or amounts" . . . paid to the laboratory . . . In our opinion, the use of a percentage rather than a dollar amount will not constitute a defense to a proceeding under Article 4447s. The bill analysis states that "there is some concern that the amount billed to the patient or insurance company may not actually reflect the cost of the laboratory test." It is clear that the purpose of Article 4447s is to protect the patient from unfair laboratory charges. It is well established that in interpreting a statute "it is permissible to consider the evil sought to be remedied and the cause which induced its enactment." We believe therefore that Article 4447s requires disclosure of a net dollar amount rather than a percentage of the total amount paid for laboratory services.

Question: What enforcement authority does the Board have for violation of the act? Section 2 of the act states that the Board has the authority to "deny an application for license or other authority to practice for violation of Section 1 of this act." Did the Legislature intend that all of the authority of the Board under the provisions of Article 4506, VATS, to cancel, revoke or suspend the license of any practitioner of medicine, be available to the Board in enforcement of the act, or does Section 2 limit disciplinary authority only to denial of a license or other such license or permit?

Answer: Section 2 permits the Board to deny an application for a license for violation of Section 1, but it also makes clear that such authority is in addition to other

authority granted. Article 4506, VTCS, grants to the Board the right to cancel, revoke, or suspend a license of any practitioner of medicine upon proof of the violation of the law in any respect with regard thereto. Thus, we believe that the Board is authorized to cancel, revoke, or suspend a license of any practitioner of medicine upon proof of the violation of the law in any respect with regard thereto. Thus, we believe that the Board is authorized to cancel, revoke, or suspend the license of any physician who is found to have violated Article 4447s.

Question: Can the required disclosure under the act be accomplished by the posting of a schedule of a laboratory's tests and costs therefor, or by notification to the patient on a bill or a statement that such information is available on request? The Board heard a great deal of testimony indicating that many if not most physicians' statements or bills are automated or programmed, and that inclusion of the required information would raise the cost of medical care by substantially increasing billing or bookkeeping costs. Many practitioners have urged that the Board seek your opinion as to whether the legislative intent of the new act might be accomplished by the two methods indicated in the above question.

Answer: In our opinion, Article 4447s clearly requires that the "net amount" be disclosed "on the bill or statement." Accordingly we answer your final question in the negative.

Summary

The Attorney General ruled that although a professional association and other organizations of physicians need not comply with Article 4447s, the professional members of that organization are subject to its terms. Article 4447s applies to agreements with any laboratory organized as a separate entity. The statute requires disclosure of the net dollar amount rather than a percentage of the total amount paid for laboratory services. Disclosure is not accomplished by the posting of a schedule of costs or notification to the patient that such information is available on request, but must be made known to the patient on the bill or statement. The Board of Medical Examiners, in addition to its authority to deny an application for license for violation of Article 4447s, is also empowered by Article 4506 to cancel, revoke, or suspend the license of any physician who is found to have violated that statute.

Conclusion

The above opinion affords some additional information with respect to questions about HB 1309.

The Board of Medical Examiners has the power under the act to warn, reprimand, cancel, revoke, or suspend a license for a violation. In addition, the board has the power to probate any action so long as the practitioner conforms to such orders and rules as the board may set out as the terms of probation.

The board has the power and may subsequently request additional interpretation of the Attorney General or propose rules and regulations relating to same.

The act does not apply to a physician who operates his or her own laboratory so long as the laboratory is not incorporated as a separate entity.

The bill does apply to several physicians who own a laboratory as a corporation because a corporation is a separate entity.

If several physicians own a laboratory together as a cooperative effort or a partnership, this laboratory is an extension of the physicians' office and the bill would not ap-

ply because the laboratory is not a separate entity.

To comply with the law, the information must be communicated on a bill or statement at the time the original bill or statement is prepared for a patient, or given to the patient, and would not need to be repeated on subsequent billings relating to charges for such tests.

Copies of the actual laboratory report, with the tests and amounts charged, must be provided. The bill or statement is the sum total of all information and there is no requirement that all information must be on one instrument or paper. If the report has the name, address of the laboratory, and charges, then giving the patient a copy of that report, in some manner, either at the time the patient is in the office or in the envelope with the bill or statement, would fulfill the requirements.

The act does not mention types of payment. Therefore, when the bill or statement is presented to the patient, a disclosure should be made for any method of payment.

It is not necessary to itemize each test. The act states that only net amounts paid must be disclosed. Therefore, total net amounts for tests or combinations of tests would be satisfactory.

The act speaks of name and address, and the specific requirement of street address is not delineated. Therefore, XYZ Lab, Medical City, Texas, would be sufficient.

The act is not specific about net amounts and more than one approach may be used. The only element that must be remembered is to disclose the net amounts paid. An example of compliance would be to place at the bottom of the statement, either typed or stamped, "A portion or all of the lab work prescribed for you was performed by XYZ Lab, Medical City, Texas, and they were paid $_____ for their testing portion only." The law does not prohibit a physician from billing the patient more than the net amount paid for tests. The law only requires that disclosure be made of the amounts paid for the tests. A separate piece of paper with the above information, enclosed with the bill or the statement, would fulfill the requirements of the law. A copy of the statement received by the laboratory would also meet the requirements if the name, location of laboratory, and charges appear on the statement.

According to the Attorney General, disclosure of the net amount to be paid cannot be made by including a percentage figure rather than a net dollar amount.

There are several types of ownerships and operations of laboratories as well as methods of billing being used in practice. A difference in situations may alter the compliance or noncompliance with the law, and therefore all facts should be examined in the light of the statute.

Ace Pickens
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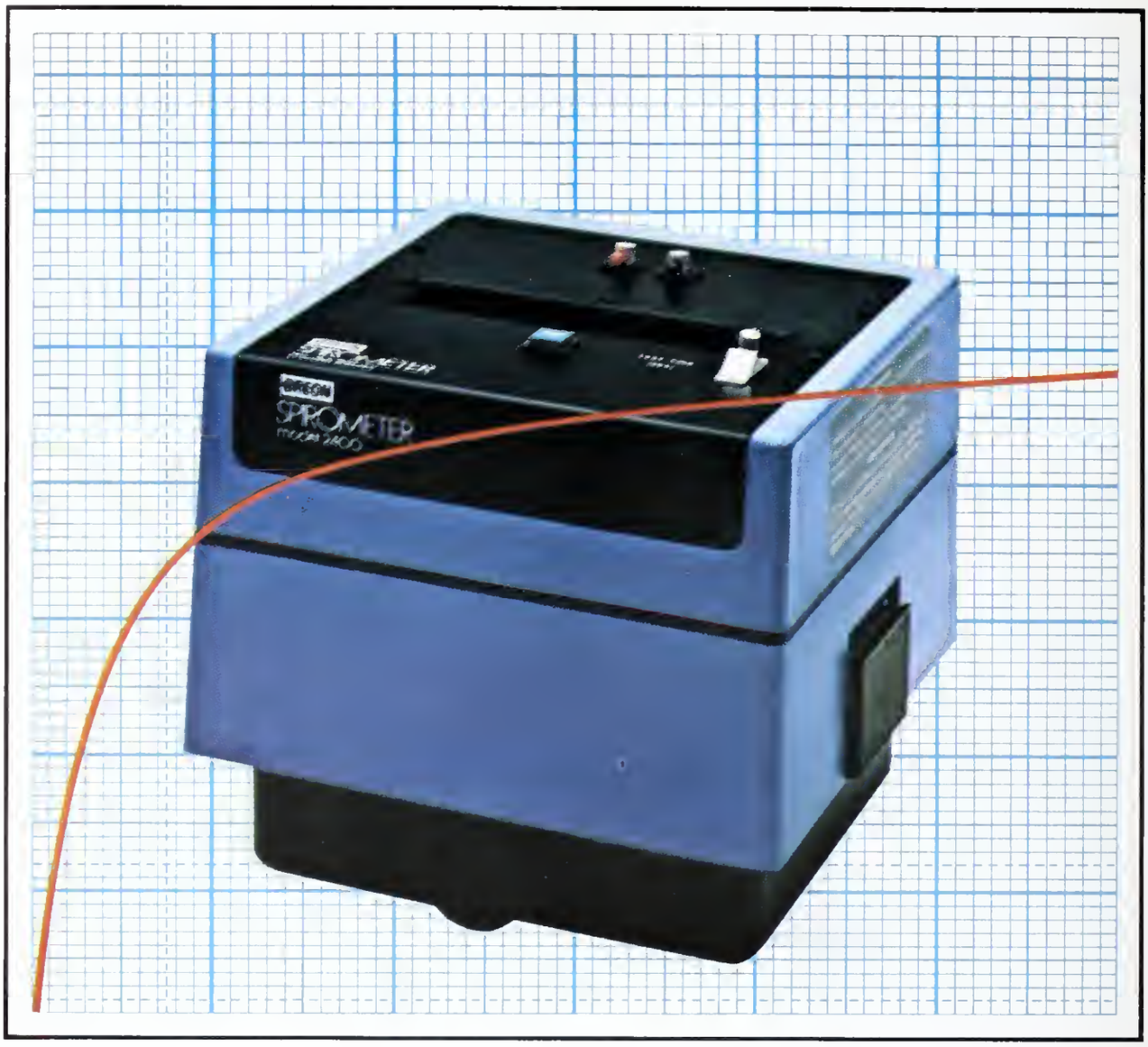

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Medical Newsmakers

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New officers of the Texas District Branch of the American Psychiatric Association are LAURENCE C. MCGONAGLE, MD, San Antonio, president; JANE H. PRESTON, MD, Houston, president-elect; and TRACY R. GORDY, MD, Austin, secretary-treasurer.

Co-recipients of the 1978 Passano Award are MICHAEL S. BROWN, MD, and JOSEPH L. GOLDSTEIN, MD, scientists at The University of Texas Health Science Center, Dallas. Dr Goldstein is chairman of the department of biophysics and molecular genetics and Dr Brown is director of the Center for Genetic Disease in that department.

ORVILLE CODY THOMAS, MD, Houston, has been selected to serve a one-year term as president of the American Association of Certified Allergists. Dr Thomas is clinical associate professor at Baylor College of Medicine and The University of Texas Graduate School of Biomedical Sciences, Houston. He is chairman of the Scientific Advisory Council of the Texas Allergy Research Foundation.

CARMAULT B. JACKSON, JR, MD, Houston, has been elected to membership in the Institute of Medicine of the National Academy of Sciences. Dr Jackson is associate director of the Office of Extramural Programs at M.D. Anderson Hospital and Tumor Institute.

A new ten-story medical education and research tower being constructed at Baylor College of Medicine has been named the MICHAEL E. DEBAKEY Medical Education Building and Research Center. Dr DeBakey, president of Baylor College of Medicine, is professor and chairman of surgery there, and serves as director of the National Heart and Blood Vessel Research and Demonstration Center.

CLAIR JORDAN, RN, has been appointed executive director of the Texas Nurses Association. Ms Jordan is a member of the American Society of Association Executives, American Nurses' Association, and Texas Women's Political Caucus.

New officers of the Texas Association of Obstetricians and Gynecologists are JAMES H. GOODSON, MD, Dallas, president; GEORGIA LEGETT, MD, Austin, president-elect; ALVIN L. LEBLANC, MD, Galveston, vice-president; and WILLIAM H. NASH, MD, San Antonio, secretary-treasurer.

The Texas Nurses Association has honored three Texans for outstanding activities. The awards were presented to SEN LLOYD BENTSEN for his advocacy of improved consumer health care through national legislation; E. LOWELL BERRY, MD, MPH, Director of Public Health in Dallas, for his leadership in public health and the advancement of nurse practitioners; and EDDIE BERNICE JOHNSON, RN, Dallas, for her contributions to the improvement of health care in Texas and the advancement of professionalism within nursing.

COLEMAN JACOBSON, MD, Dallas, has been elected president of the Dermatology Foundation, an organization devoted to the support of research and education in skin cancer and skin diseases.

The Stroke Clubs, International have honored JOHN R. DERRICK, MD, and JOHN WALLACE, MD, professors at The UT Medical Branch, Galveston. Dr Derrick is founder of the Stroke Club and past president of the American Heart Association, Texas Affiliate. Dr Wallace is past president of the Bay Area Heart Association.

Orville Cody Thomas, MD

Clair Jordan, RN

Coleman Jacobson, MD

Deaths

Dr Andrews

Dr Brau

D.D. Altgelt, MD

Daniel Dane Altgelt, MD, Rockport, Tex, died Dec 18, 1977. He was a member of Bexar County Medical Society.
Dr Altgelt, 68, was born in San Antonio. He attended the University of Chicago and was graduated from UT Medical Branch in 1934. After an internship at Kings County Hospital Center, Brooklyn, NY, he began practice in San Antonio.
Survivors include his wife, Iva Newton Altgelt, Rockport; son, Daniel Dane Altgelt, Jr, Corpus Christi; daughter, Iva Newton Brame, San Antonio; a brother; and three grandchildren.

T.A. Andrews, MD

Tom Adam Andrews, Jr, MD, a member of Harris County Medical Society, died Oct 16, 1977. He practiced urology in Houston from 1928 until his retirement in 1970.
Dr Andrews, 73, was born in West Point, Tex. He was a 1924 graduate of The University of Texas at Austin and a 1928 graduate of UT Medical Branch, Galveston. He interned at Turner Urological Institute, Jefferson Davis Hospital, Houston; and took a gynecology residency at Touro Infirmary, New Orleans.
Surviving are his wife, Ida Gober Andrews, Houston; sons, Tom A. Andrews, III, Austin, and Giles J. Andrews, MD, Beaumont; two sisters; two brothers; and several grandchildren, nephews, and nieces.

B.C.Ball, MD

Bertus Clyde Ball, MD, 86, past president of Tarrant County Medical Society and an honorary member of Texas Medical Association, died Aug 19, 1977, at his home in Fort Worth.
Dr Ball was born in Claude, Tex, and practiced in Fort Worth from 1919 until his retirement in 1971. He was a 1914 graduate of Texas A&M University, College Station, and a 1918 graduate of Washington University School of Medicine, St Louis.
The internist is survived by his wife, Irene Veit Ball, and stepdaughter, June Wynne, Fort Worth; daughter, Mar Gwen Land, San Diego; one brother; six sisters; five grandchildren; and two great-grandchildren.

Laura C. Bickel, MD

Laura Carnell Bickel, MD, 65, a leader in the development of pediatric practice and education in Houston for more than 30 years, died Dec 15, 1977. A member of Harris County Medical Society, she was one of the first physicians to observe the link between German measles in pregnancy and malformations in newborns.
A native of Shamokin, Pa, Dr Bickel received BS and MD degrees from the University of Wisconsin. She interned at Jersey City (NJ) Medical Center and at Willard Parker Hospital, New York. Her residencies were at Children's Memorial Hospital, Chicago, and Children's Hospital, Cincinnati. She took postgraduate training as a fellow at Children's Hospital Research Foundation, Cincinnati.
Dr Bickel is survived by her brothers, William H. Bickel, MD, Sun City, Ariz; and Ralph F. Bickel, Hershey, Pa; and four nieces.

J.G. Brau, MD

Dermatologist John Gilmore Brau, MD, 72, Dallas, died July 14, 1977. He was a member of Dallas County Medical Society.
Dr Brau, a native of Smithville, Tex, attended The University of Texas at Austin before entering Baylor College of Medicine, Dallas. He completed his MD in 1930 and remained at Baylor for his internship. In

1938, he became a Diplomate of the American Board of Dermatology and Syphilology. After service in the US Army during World War II, Dr Brau returned to private practice in Dallas in 1946.
Surviving are his wife, Edna McAdams Brau, and daughter, Martha Christina Hill, Dallas; son, John G. Brau, Jr, Lake Jackson, Tex; three sisters; and two grandchildren.

E.R. Brigham, MD

Edgar Roy Brigham, MD, Rusk, Tex, died Aug 29, 1977. He was a member of Cherokee County Medical Society.
Dr Brigham, 95, was a native of Pilot Knob, Wis. He attended the University of Nebraska and received his MD degree from Loma Linda (Calif) University School of Medicine in 1917. He interned at San Diego County Hospital (1917-1918), and held a residency at San Bernardino County (Calif) General Hospital.
Surviving Dr Brigham are his sons, Floyd Brigham, MD, Comfort, Tex, and Kenneth Brigham, MD, Garden Grove, Calif.

W.M. Brook, MD

Winston Marshall Brook, MD, who served two terms as president of the Lampasas-Burnet-Llano County Medical Society, died Oct 3, 1977, at his home in Lampasas, Tex.
Dr Brook, 72, practiced in Lampasas from 1935 until his retirement in 1975, and served four terms as the city's mayor.
Born in Collin County, Tex, the physician attended Texas A&M University and Baylor University. He was graduated from Baylor College of Medicine, Dallas, in 1930, and served his internship and residency at Methodist Hospital, Dallas.
Surviving are his wife, Maude Woody Brook, Lampasas; son, Winston Rollins Brook, Chicago; daughter, Joe Ann Vann, Dallas; and two granddaughters.

F.R. Bussey, MD

Frank Rather Bussey, MD, 66, an Austin ophthalmologist, died Dec 29, 1977. He was a member of Travis County Medical Society.
Dr Bussey was born in Timpson, Tex, and attended Baylor University and The University of Texas at Austin. In 1942, he received his MD degree from UT Medical Branch, Galveston. He interned at the US Naval Hospital, Corpus Christi; his residencies were at the US Naval Hospital, St Albans, NY; and New York University.
Survivors include his wife, Irra Petina Bussey, Austin; son, Frank R. Bussey, III; and a grandson.

P.J.C. Byars, Jr, MD

Perry J. C. Byars, Jr, MD, San Angelo, Tex, died Aug 7, 1977. He was a past president of the Tom Green Eight County Medical Society.
Dr Byars, 66, was born in Lebanon, Tenn. He received his BS degree from Trinity University, San Antonio, in 1934, and, his MD degree from UT Medical Branch, Galveston, in 1939. He interned at Presbyterian Medical Center, Denver.
Surviving are his wife, Margaret Dobbins Byars, San Angelo; sons, Alan E. Byars, Athens, Greece, and Dale E. Byars, Houston; and a daughter, Mrs John W. Hull, Jr, Panama City, Fla.

R.H. Cameron, Jr, MD

Ralph Haywood Cameron, Jr, MD, 51, died Aug 4, 1977. A member of Nueces County Medical Society, Dr Cameron lived in Corpus Christi 13 years before moving his

Dr Brook

Dr Bussey

Dr Byars

Dr Cameron

Dr Carter

Dr Conner

Dr Crockett

Dr Cummins

practice to Robstown, Tex, in 1965.
The family physician was born in San Antonio and attended The University of Texas. He received his MD from Tulane University School of Medicine, New Orleans, in 1951, and interned at Robert B. Green Memorial Hospital, San Antonio.
Surviving are his wife, Joan Evans Cameron, stepdaughter, Lisa Strickhausen, and stepson, George Strickhausen, III, Corpus Christi; his mother; one brother; two sisters; five nieces; and one nephew.

J.H. Carter, MD

John Hardin Carter, MD, an eye, ear, nose, and throat specialist, died Dec 27, 1977. He was 82.
An honorary member of Texas Medical Association and a member of Jefferson County Medical Society, Dr Carter practiced in Beaumont for 48 years.
The physician was born in Marianna, Fla. He attended the University of Florida and in 1920 was graduated from Tulane University School of Medicine. He interned at Charity Hospital, New Orleans, and was a resident at the Eye, Ear, Nose, and Throat Hospital, New Orleans.
Surviving are Dr Carter's wife, Abbie Johnson Carter, Beaumont; daughters, Eleanor Tuffly and Frances Reding, Houston; three grandchildren; one sister; and a nephew.

P.K. Conner, MD

Paul Kerr Conner, MD, an honorary member of Texas Medical Association and a member of Wichita-Young-Archer-Jack County Medical Society, died Oct 8, 1977, after a lengthy illness.
Dr Conner, 79, retired in 1976 after a career that spanned more than 50 years. He began a general practice in his hometown, Archer City, Tex, and later moved to Jacksboro, Tex.
Following his graduation from Southern Methodist University, Dallas, in 1920, Dr Conner entered UT Medical Branch. He received his MD degree in 1924 and interned at Robert B. Green Memorial Hospital, San Antonio.
Survivors include his wife, Ethel Cronovich Conner, Jacksboro; sons, Paul K. Conner, Jr, MD, and Patrick James Conner, Dallas; one sister; and two grandchildren.

J.A. Crockett, MD

John Augustus Crockett, MD, 81, died Dec 27, 1977. Dr Crockett, a resident of Austin for more than 30 years, was a member of Travis County Medical Society.
A native of Chappell Hill, Tex, he attended The University of Texas at Austin. In 1922, he received a doctor of medicine degree from Tulane University School of Medicine, New Orleans. His internship was at Little Rock (Ark) General Hospital; his residency was at the Eye, Ear, Nose, and Throat Hospital, New Orleans.
Surviving the physician are his wife, Pat Shaver Crockett, Austin; son, Dick Crockett, Seattle; daughter, Elanor Crockett Camp, Houston; one sister; three brothers; eight grandchildren; and two great-grandchildren.

E.J. Cummins, MD

Erwin Jeptha Cummins, MD, an honorary member of Texas Medical Association and past president of El Paso County Medical Society, died Oct 21, 1977.
Dr Cummins, 91, had lived in El Paso 63 years and served as president of the city's school board for ten years. He was a native of Putney, SD, and attended Northern State College, Aberdeen, SD. He received his MD from Northwestern University Medical School, Chicago, in 1912, and interned at Cook County Hospital, also in Chicago.
Surviving are Dr Cummins' wife, Edna Frances Cummins, and daughter, Hazel Louise Sutherland, El Paso; sons, E.J. Cummins, Jr, MD, Nigeria, and Ray William Cummins and Robert Francis Cummins, El Paso; one sister; fourteen grandchildren; and fifteen great-grandchildren.

S.D. David, MD

Solomon D. David, MD, a long-time Houston resident, died Dec 1, 1977. He was a

member of Harris County Medical Society.
Dr David, 89, was founder of the Harris County Orthopedic Society and the South Texas Medical Assembly. He established, equipped, and maintained the Orthopedic Library at Methodist Hospital, Houston.
A native of Damascus, Syria, Dr David was graduated from Macalaster College, Minneapolis, and interned at City & County Hospital, Minneapolis. His residencies were at Massachusetts General Hospital, Children's Hospital Medical Center, and Harvard Affiliated Hospitals, Boston.
Dr David is survived by his wife, Alice Wadia David, Houston; daughters, Florence Livingston, Falls Church, Va, Alice Rainey, Hempstead, Tex, and Betty Guenveur, South Pasadena, Calif; son, S.D. David, Jr, New Braunfels, Tex; two sisters; one brother; nine grandchildren; and three great-grandchildren.

D.J. Doss, MD

Doyle Jefferson Doss, MD, 59, Fort Worth, died Dec 31, 1977. He was a member of Tarrant County Medical Society.
A native of Waco, Tex, he was graduated from Baylor University and UT Southwestern Medical School. He interned at Harris Hospital, Fort Worth, and held a residency at Lubbock County (Tex) Hospital.
Dr Doss is survived by his wife, Sarah Conner Doss, Fort Worth; daughters, Mrs Allen Hall, Carrollton, Tex, and Mrs Michael Farmer, Spencer, WVa; mother; sister; and five grandchildren.

T.H. Frnka, MD

Todd Huber Frnka, MD, 42, Houston, died Feb 5, 1978. He was a member of Harris County Medical Society.
A native of Houston, Dr Frnka was graduated from Rice University and UT Medical Branch at Galveston. His internship was at Memorial Baptist Hospital, Houston. During 1963-1965, he served as captain in the US Air Force at Bergstrom Air Force Base, Austin.
Dr Frnka is survived by his wife, Carolyn Ramsey Frnka; sons, Kris Kelly Frnka and Robert Todd Frnka; daughter, Holly Gay Frnka, all of Houston; one brother; and five aunts.

Dr Frnka

F.A. Garbade, MD

Francis Allen Garbade, MD, 70, professor emeritus of pediatrics at UT Medical Branch, died Dec 21, 1977. He was past president of Texas Pediatric Society, Galveston County Medical Society, and the St Mary's Infirmary staff.
A native of Galveston, Dr Garbade was a graduate of The University of Texas at Austin and UT Medical Branch, Galveston. He interned at the University of Iowa, Iowa City; New York Hospital; and Children's Memorial Hospital, Chicago.
Survivors include his wife, Margaret McDowell Garbade, Galveston; daughters, Anne Schwab, Galveston, Nancy Roth, London, and Sarah Pfeffer, Austin; a sister; and one grandchild.

Dr Garbade

Dr Gates

C.S. Gates, Jr, MD

Charles Shakleford Gates, Jr, MD, Houston, an honorary member of Texas Medical Association and a member of Harris County Medical Society, died Jan 26, 1978. He was 90.
Dr Gates was a native of Winchester, Tex. In 1910 he was graduated from UT Medical Branch, Galveston. He served in the US Navy during World War I, and was a physician for The University of Texas Student Health Center, Austin, and a surgeon for Texaco for 25 years before his retirement at the age of 80.
Survivors include Dr Gates' daughter, Elizabeth Gates Rogers, Houston; three grandchildren; and two great-grandsons.

J.W. Herman, MD

Julius William Herman, MD, a Baytown family physician, died Jan 27, 1978. He was 59 and a member of Harris County Medical Society.
A native of Benton County, Miss, Dr Herman was graduated from Baylor College of Medicine in 1944. He interned at Bracken-

Dr Jewell

Dr Ledbetter

Dr Marstaller

Dr Morris

ridge Hospital, Austin, and practiced in Groveton, Tex, from 1946 to 1955. After serving two years in the US Navy, he began his family practice in Baytown in 1958.
Dr Herman is survived by his wife, Lydicicele Owens Herman, Baytown; daughters, Debra Ann Herman, Baytown, and Caroline Shaddix; a brother; and a granddaughter.

G.W. Jewell, Jr, MD

George Washington Jewell, Jr, MD, died Dec 22, 1977.
Dr Jewell, 60, practiced in Fort Worth for 31 years, and was a member of Tarrant County Medical Society.
A native of Grafton, WVa, he was a graduate of UT Southwestern Medical School, Dallas. He interned at Parkland Memorial Hospital, Dallas, and was a resident at All Saints Episcopal Hospital of Fort Worth.
Surviving Dr Jewell are his wife, Lavonia Rorie Jewell; sons, John E. Jewell, William B. Jewell, and G.W. Jewell, III; and daughter, Beverly York, all of Fort Worth.

J.C. Kuppinger, MD

Ophthalmologist John Canniff Kuppinger, MD, 47, died Dec 11, 1977.
A resident of Harlingen for 27 years, Dr Kuppinger was chief of staff at Valley Baptist Medical Center, and past president of Cameron-Willacy County Medical Society and Texas Ophthalmological Society.
He was born in Francitas, Tex, and spent his youth in Omaha. He received his medical degree from the University of Nebraska College of Medicine in 1944, and served in the US Navy during World War II and the Korean War.
Surviving are his wife, Charlotte Willsie Kuppinger, Harlingen; daughters, Ann Phillips, Harlingen, and Sally Johnson, Dallas; mother; brother; sister; and four grandchildren.

A.A. Ledbetter, MD

Abbe Alzu Ledbetter, MD, Houston, died Feb 9, 1978. He was a member of Harris County Medical Society.
Dr Ledbetter, 75, former chief of medicine, Memorial Baptist Hospital, and associate professor of medicine, Baylor College of Medicine, was president-elect of the Ninth District Medical Society.
A native of Sweet Home, Tex, he received a pharmacy degree from The University of Texas and, in 1930, received his doctor of medicine degree from UT Medical Branch, Galveston. After an internship at Cleveland City Hospital, he joined his brother to form the Ledbetter Clinic Association in Houston.
Surviving are his wife, Elise Fonville Ledbetter; daughter, Barbara Britt; sons, Abbe A. Ledbetter, Jr, MD, and William Dale Ledbetter; a brother; and nine grandchildren, all of Houston.

W.E. Marstaller, MD

William Edward Marstaller, MD, 61, Waco, died Feb 7, 1978. He was a member of McLennan County Medical Society.
Dr Marstaller had lived in Waco since 1924. He was a native of Lorena, Tex, and attended Baylor University. In 1941, he was graduated from Baylor College of Medicine, Dallas. He interned at Southern Baptist Hospital, New Orleans, and held a residency at Huey P. Long Memorial Hospital, Pineville, La.
Survivors include his wife, Norma Ehrhorn Marstaller, and daughter, Jan Wiethorn, Waco; son, Richard Marstaller, Plano, Tex; one brother; and one granddaughter.

R.H. Morris, Jr, MD

Roy Harvey Morris, Jr, MD, Elgin, died Jan 4, 1978.
Dr Morris, 61, was past president of the Bastrop-Lee County Medical Society.
A native of Brownwood, Tex, he was graduated from Howard Payne College and UT Medical Branch, Galveston. He interned at Hermann Hospital, Houston, and held surgical residencies at Hermann Hospital and M.D. Anderson Hospital and Tumor Institute.
Dr Morris is survived by his wife, Irene Morris; sons, Roy H. Morris, III, John R. Morris, Paul R. Morris, and James G. Morris, all of Elgin; and one brother.

F.H. Newton, MD

Frank Hawley Newton, MD, retired Dallas ophthalmologist, died July 8, 1977. He was an honorary member and past president of Dallas County Medical Society. He also was an honorary member of Texas Medical Association and the American Medical Association.

Dr Newton, 91, was born in Hillsboro, Tex. He received his BA degree from The University of Texas at Austin in 1907 and, his MD from UT Medical Branch, Galveston, in 1914. He was an intern and resident at St Louis City Hospital.

Surviving are five nephews and two nieces.

V.O. Rosser, Jr, MD

Virgil Oliver Rosser, Jr, MD, 72, a member of Wichita-Young-Archer-Jack County Medical Society, died Aug 1, 1977. He had lived in Graham, Tex, since 1935, and had served as mayor of the city.

Born in Dallas, Dr Rosser attended The University of Texas at Austin. He was graduated with honors from Baylor College of Medicine, Dallas, in 1932, and his internship and residency were at Baylor University Medical Center.

Surviving the family physician are his wife, Irene Hill Rosser, daughter, Mrs Payne Roye, and son, Richard M. Rosser, Graham; another son, Virgil O. Rosser, III, San Antonio; four sisters; 11 grandchildren; and one great-grandchild.

M.O. Rouse, MD

Milford Owen Rouse, MD, 75, state and national medical leader and emeritus member of Texas Medical Association, died March 14, 1978. He was past president of TMA and the American Medical Association, speaker of the AMA House of Delegates, and an officer of numerous other medical and civic organizations.

Dr Rouse, who had lived in Dallas since 1928, received many honors and awards, including the Distinguished Service Award of TMA and the Southern Medical Association, the first Distinguished Alumnus Award of Baylor Medical Alumni Association, the Award of Merit of Dallas Southern Memorial Association, and an honorary Doctor of Laws degree from Baylor University.

A gastroenterologist born in Jacksonville, Tex, he was graduated from Baylor University and Baylor College of Medicine. His internship was at Ft Sam Houston, Tex.

Surviving are Dr Rouse's wife, Leaureame McDavid Rouse, Dallas; daughter, Mrs Curtis L. Sawyer, Ft Smith, Ark; two sisters; one brother; and three grandchildren.

H.C. Sehested, MD

Herman Charles Sehested, MD, 76, an honorary member of Texas Medical Association and a member of Tarrant County Medical Society, died Jan 3, 1978, in Fort Worth.

A native of Omaha, Dr Sehested was a graduate of Baylor University and the University of Oklahoma School of Medicine. He interned at University of Oklahoma Hospitals, Oklahoma City. He conducted a family practice in Tyler, Tex, before joining the US Air Force in World War II.

Dr Sehested is survived by his wife, Len Sehested, Fort Worth; son, Howard Sehested, Houston; one brother; two sisters; and three grandchildren.

H.O. Smith, MD

Howard Owen Smith, MD, Marlin, died May 17, 1977. A member emeritus of Texas Medical Association, Dr Smith, 78, was past president of the Texas State Board of Medical Examiners, Twelfth District Medical Society, Texas Association of Obstetricians and Gynecologists, and the Texas Medical Association. He was chairman of the board of Torbett Hutchings Smith Memorial Hospital, Marlin.

A native of Hamilton, Tex, Dr Smith attended Baylor University, Waco, and received his bachelor of science degree from The University of Texas. In 1922, he was graduated from The University of Texas Medical Branch, Galveston. He externed at John Sealy Hospital, Galveston, and interned at City Hospital, Cleveland, Ohio. He took postgraduate work in surgical operative technique in Chicago and at the New York Polyclinic.

Survivors include Dr Smith's sons, Howard Lee Smith, MD, and Jack Welch, Marlin; and five grandchildren.

Dr Newton

Dr Rosser

Dr Rouse

Dr Sehested

Dr Smith

Dr Suttle

Dr Till

W.F. Spiller, Jr, MD

William Fielding Spiller, Jr, MD, Waco, died Oct 23, 1977. He was former chairman of the dermatology department, UT Medical Branch; past president of Galveston County Medical Society; and an honorary member of the County Medical Society and Texas Medical Association.
Dr Spiller, 90, retired in 1966 after practicing dermatology 55 years in Galveston. A native of Montgomery County, Tex, he was graduated from UT Medical Branch, Galveston, in 1911, and interned at St Mary's Infirmary, also in Galveston.
Surviving are Dr Spiller's daughter, Mrs James H. Hejtmancik, Waco, and three grandchildren.

R.C. Suttle, MD

Robert Courtney Suttle, MD, 72, a Dallas physician for more than 35 years, died Jan 4, 1978. He was a member of Dallas County Medical Society.
Born in New York City, he received his MD degree from Loyola University Stritch School of Medicine, Chicago. He interned at Lucas County (Ohio) Hospital. He had a general surgery practice from 1936 to 1939 in Put In Bay, Ohio, before serving in the US Army for five years. Following World War II, he began his family practice in Dallas.
Dr Suttle is survived by his wife, Marynel Smith Suttle; daughters, Susan Suttle and Shayne Suttle; son, Courtney Suttle, all of Dallas; and a sister and a brother.

J.R. Till, Jr, MD

Jacob Rall Till, Jr, MD, 68, Canyon Lake, Tex, died Nov 11, 1977. He was a member of the Comal County Medical Society.
A native of Tensaw, Ala, Dr Till attended the University of Alabama and was graduated from Tulane University School of Medicine in 1932. He interned at Hotel Dieu Hospital, New Orleans, and served in the US Air Force during 1933-1969.
Dr Till is survived by his wife, Margaret M. Till, Canyon Lake; mother; one brother; and two sisters.

F.H. Van Wagoner, MD

Frank Hiram Van Wagoner, MD, San Antonio, died March 1, 1977.
Dr Van Wagoner, 69, was a retired general surgeon. He had lived in San Antonio since 1963. He was a member of the US Army Medical Corps from 1935 to 1960, and was in private practice in El Paso from 1960 to 1963.
Dr Van Wagoner was born in Salt Lake City, Utah. He was graduated from the University of Utah, Salt Lake, in 1927. He received his MD degree from Northwestern University Medical School, Chicago, in 1933. His internship was at Gorgas Hospital, in the Canal Zone, and his residency was at Brooke Army Medical Center, San Antonio.
The physician's professional memberships included the Bexar County Medical Society, American College of Surgeons, and American Medical Association.
Surviving Dr Van Wagoner are his wife, Evelyn V. Van Wagoner; son, Maj Frank A. Van Wagoner, and daughter, Mrs Drew Cauthorn, all of San Antonio; and four grandchildren.

W.G. Wallace, MD

William Gordon Wallace, MD, Beaumont, an honorary member of Texas Medical Association and a member of Jefferson County Medical Society, died Nov 16, 1977.
Dr Wallace, 89, retired in 1972 after practicing obstetrics and gynecology for 62 years. The native of Metcalfe, Ontario, was graduated from Queen's University Faculty of Medicine, Kingston, Ontario, in 1909.
Surviving are his daughter, Dorothy Lois Beverly, New Buffalo, Mich; and a niece.

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Of course the whole health care cost problem is tremendously complex. For a fuller understanding of it, we have prepared a concise summary of the Commission's Report. We will be glad to send you a copy, without charge. Please write Dept. OPR.

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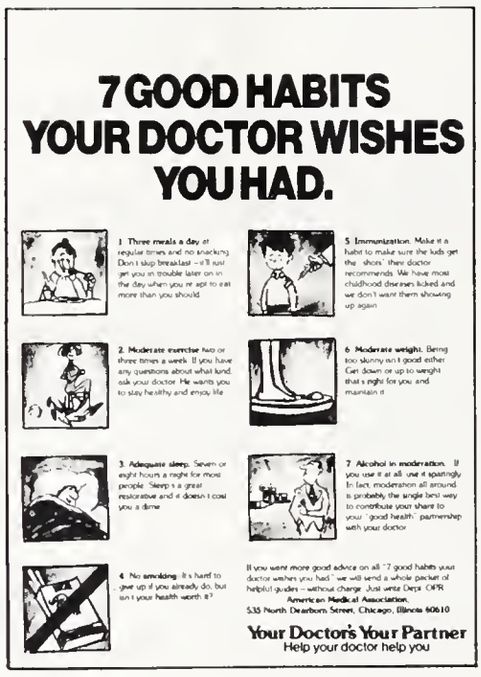

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Of course the whole health care cost problem is tremendously complex. For a fuller understanding of it we have prepared a concise summary of the Commission's Report. We will be glad to send you a copy without charge. Just write Dept. OPR.

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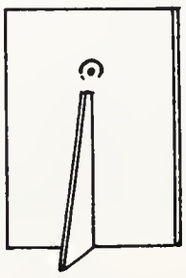

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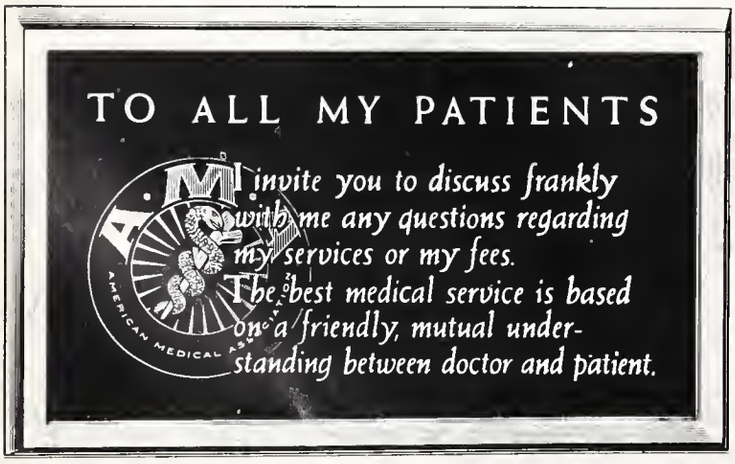

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WANTED: INTERNIST, preferably with subspecialties in gastroenterology, pulmonary diseases, rheumatology or cardiology to join growing multispecialty clinic. Excellent facilities in new clinic building adjacent to new hospital. Contact Taylor Smith, M.D., Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

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FAMILY PRACTICE—In small city South Central Texas; San Antonio, Austin area. Drawing area 22,000. 50-bed new hospital under construction. Financial assistance available. William B. Watts, Administrator, Gonzales County Hospital District, Gonzales, Texas 512-672-2811.

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INTERNIST—In small city South Central Texas; San Antonio, Austin area. Drawing area 22,000. 50-bed new hospital under construction. Financial assistance available. William B. Watts, Administrator, Gonzales County Hospital District, Gonzales, Texas. 512-672-2811.

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FOURTH PHYSICIAN to join family practice group. Clinic integrated part of facility with 40 acute, 44 long term beds. Unique set-up, no buy in, no junior partner status, guarantee available. Fine small town 30 miles from Lubbock. You need to investigate this to really appreciate it. Contact Ray W. Freeman, M.D., Hugh H. Wilson, M.D., Gordon Russell, Hi-Plains Hospital, 203 West 4th Street, Hale Center, Texas 79041; 806 839-2471.

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EMERGENCY PHYSICIAN GROUP has full-time positions available in Austin, Texas. Large volume emergency department. Fee-for-service. Malpractice insurance provided. $30-$40/hour. Please contact John Stein, 897 McArthur Blvd., San Leandro, California 94577; 415-638-3979.

PHYSICIANS WANTED—Progressive hospital in East Texas. Contact Paul Bennett, Administrator, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647. Telephone 214-845-2281.

BIG SPRING—PSYCHIATRIST, board certified or eligible. Salary $38,000 to $42,800. Texas license required. Building a better and more dynamic program in state hospital. Ideal family living town of 30,000, good schools, recreation, mild West Texas weather. Call or write Doug Cheney, Personnel Director, Big Spring State Hospital, P.O. Box 231, Big Spring, Texas 79720; 915-267-8216. An equal opportunity/affirmative action employer.

THE DEPARTMENT OF FAMILY PRACTICE, The University of Texas Health Science Center at San Antonio, is seeking a full-time faculty person to become the Deputy Director of its satellite program in the Rio Grande Valley. This program is established and accredited. The academic rank and salary are negotiable based on credentials and experience. Board certification and a special interest in internal medicine are desirable. Reply to: Herschel L. Douglas, M.D., Professor and Chairman, Department of Family Practice, The University of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, Texas 78284. An equal employment/affirmative action employer.

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SUPERINTENDENT RUSK STATE HOSPITAL. Physician, licensed to practice in Texas. Certified or Board eligible in psychiatry and must possess administrative ability. Base salary is $40,600/yr with house and utilities provided. Up to $3,000 additional salary may be granted by the Commissioner of TDMHMR and an additional $1,000 compensation for Board Certification. Fringe benefits include vacation, sick leave, and usual state benefits including a retirement program. Legal protection provided by state law. Applications must include a professional resume and must list not less than three references. Applications must be addressed to: John J. Kavanaugh, M.D., Acting Commissioner, Texas Department of Mental Health and Mental Retardation, Box 12668, Capitol Station, Austin, Texas 78711.

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Situations Wanted

PEDIATRICIAN, 32 years old, board eligible, Texas license, desires position in a hospital or clinic or with a group practice in Houston, Texas and vicinity. Please reply to Ad-780, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

THORACIC AND CARDIOVASCULAR SURGEON: Completing residency June 1978, University of Utah, LDS Hospital, Salt Lake City. Available July 1978 for associate, group or solo practice. Contact Saeed Esmaili, M.D., 914 Medical Plaza North, Salt Lake City, Utah 84112; 801-583-0511.

GENERAL SURGEON, Board certified, 35. Seeks solo, partnership or group type practice near metropolitan area or in moderate size town. Available summer of 1978. Presently fulfilling military obligation at teaching hospital. Please reply to Ad-793, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

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PATHOLOGIST—37, AP board certified and CP eligible. University trained. Desire a position in group or hospital based practice. Available after June. Please reply to Ad-800, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL SURGEON, 35, board certified, FMG, seeking solo practice or association with a group. Willing to do some GP work. Please reply to Ad-798, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

PHYSICIAN AVAILABLE: 33, FMG, FLEX, finishing pathology residency in June 1978. Interested in salaried job, teaching, laboratory or as associate. Husband internist. Please reply to Ad-797, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

CLINICAL PSYCHOLOGIST, 37, SW Med School Ph.D., 1971. Experienced in individual and group psychotherapy. Psychological assessment, and consultation. Member APA, AGPS, six publications. Seeks association with physician, share office expense, mutual referrals. Please reply to Ad-801, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL-PERIPHERAL VASCULAR SURGEON—30, board certified, vascular fellowship. Available 7/78, group or solo practice. Extensive peripheral vascular experience. Please reply to Ad-803, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

GENERAL SURGEON. University trained with wide range of experience. Passed Part I of ABS. Appearing for Part II in May. Passed FLEX, ECFMG. Presently in solo practice for past two years in Northeast. Like to move to warm Texas. Prefer metropolitan area. Please reply to Ad-804, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST/ENDOCRINOLOGIST: 35, fully trained, practicing subspecialty at USAF Medical Center. Desires hospital based or group practice in suburb of medium or large city. Prefer El Paso area or coast. Available November. C.V. on request. Robert A. Horvath, M.D., 1372 Walnut Bend Court, Fairborn, Ohio 45324.

ANESTHESIOLOGIST—Board certified, experienced and university trained, would like to relocate in the State of Texas. Available within 4-8 weeks notice. Texas licensed. Please reply to Ad-805, *Texas Medicine*, 1801 North Lamar Blvd., Austin, Texas 78701.

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***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates. MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
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Editorials

COMPUTED CRANIAL TOMOGRAPHY: ITS TRUE PERSPECTIVE

Since its clinical introduction in 1973,[1] computed cranial tomography (CT scan) has been widely accepted in the investigation of neurological diseases. Extensive clinical experience has been accumulated, and the CT scan's salutary role in clinical medicine is firmly established. Its exact place in the investigation of neurological diseases now must be defined and a cost analysis made.

Since July 1975, I have personally supervised more than 6,000 CT scans, and have been especially interested in determining the accuracy of the CT scan in detecting various neurological diseases and in comparing the CT scan with other studies, particularly the radionuclide brain scan (RN scan). It is with this background that I express the following views.

In the past decade, before the introduction of the CT scan, RN scanning was widely employed as an innocuous means of investigating neurological diseases. This examination usually preceded other invasive studies, that is, cerebral angiography and air studies. The RN scan (perfusion studies and statistic images) has an overall accuracy of about 70%.[2] Although the RN scan detects an abnormality, its specificity and anatomical localization ability are not high. In contrast to the RN scan, the specificity of the diagnosis and anatomical localization by the CT scan is far superior. Whereas the RN scan (excluding isotope cisternography) affords no information about cerebrospinal fluid (CSF) spaces, the CT scan is superb in such respects. Similarly, computed cranial tomography is unmatched by the radionuclide scan in investigation of intracerebral hemorrhage. It is because of these qualities that the CT scan has found such widespread application, with an accuracy of about 95%.[2]

The question one then must ask is, "What should be a routine or first study in the evaluation of a neurological disease?"

I think that it should be the CT scan. In the majority of cases, the CT scan affords a diagnosis which explains a clinical problem. As confidence in the accuracy of computed cranial tomography increases, other neurological studies become less and less important. For example, we hardly ever do an emergency cerebral angiogram for traumatized or comatose patients because the CT scan almost always provides an immediate answer. Air studies have been so little needed that I worry about the resident physicians not having a chance to perform such a study. (Whereas 92 pneumoencephalograms were performed in the year preceding the use of the CT scan at The University of Texas Medical Branch, the number was reduced to 34 and 17 in the succeeding two years, indicating reliance on the CT scan in investigating diseases of the CSF space.) Elective cerebral angiography for neoplasm is still usually done to help plan craniotomy, though it offers limited additional information (as a matter of fact, our neurosurgeons have operated upon several patients with cerebral neoplasms on the basis of the CT scan alone).

If, however, a radionuclide brain scan is done as a "first study," even when it is positive, a CT scan almost always follows. If the RN scan is negative and the patient's clinical symptomatology is worrisome, a CT scan also follows. In other words, while a positive CT scan often obviates the need for an RN scan, the reverse is not true. Describing it in terms of dollars, to the cost of one RN scan (average $75), the cost of a CT scan (average about $200) is added. Obviously, if one were to start with a CT scan, it is likely that the RN scan would be unnecessary and $75 saved.

Many argue that the RN and CT scans are

complementary. I agree. But that does not mean both scans must be done in every case. However, I believe that if a CT scan does not satisfactorily explain a neurological diagnosis, an RN scan (both perfusion study and static images) should be done. In this regard, ischemic infarction and inflammatory disease must be cited. Whereas a CT scan can be normal in the first 24 to 72 hours of ischemic stroke, radionuclide angiography may show a perfusion deficit. That's good. But when clinical symptoms suggest a stroke, a normal CT scan by itself provides extremely useful information because it rules out other diseases such as intracerebral hemorrhage or tumor. An RN scan, being a physiological study, can detect blood brain barrier defects in inflammatory disease at the cerebritis stage, although abscess formation can be seen easily in either scan. In an arteriovenous malformation, it is probable that the RN scan may yield somewhat more positive cases, but it may fail to show the associated clot, calcification, and sequelae of prior hemorrhage.

A word must be said about skull radiography. Skull films usually reflect only secondary changes of cerebral pathology. Why not do a study (CT scan) which unravels the primary pathology? My conservative estimate is that in 90 to 95% of nontrauma patients, skull radiography yields no useful information. Except where sellar and cerebellopontine angle pathology (acoustic neuroma) are primary considerations, skull radiography can be omitted, or obtained only after the CT scan findings warrant the obtaining of additional information.

The next logical consideration is the cost of the CT scan. At present, it ranges from $100 to $400 (usually about $200). If the CT scanners can be efficiently employed and used to full capacity, the cost of a CT scan certainly can be lowered. If unnecessary skull radiography and RN scans are omitted, the cost curtailment is obvious. I think that if there is enough reason to obtain a radiological study, then there is far more reason to obtain a definitive study, that is, a CT scan. Many physicians will state that skull radiography is requested for medicolegal purposes. We must not let the legal profession dictate that the medical profession do things which have proved to be futile and are costly. We must practice our profession according to our individual and collective conscience and wisdom rather than according to the dictates of the court.

Considering the present state of the art, routine skull radiography, except for reasons indicated, is not needed. Because it enables us to be far more specific in diagnosing and localizing the pathological lesion, the CT scan should replace the routine RN scan as the first, or routine, radiological procedure for investigation of neurological disease.

Mohammad Sarwar, MD, Galveston.

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1. Ambrose J: Computerized transverse axial scanning (tomography). Pt 2. Clinical application. Br J Radiol 46:1023-1047, 1973.

2. Evens RG, Jost RG: The clinical efficacy and cost analysis of cranial computed tomography and the radionuclide brain scan. Sem Nucl Med 7:129-136 (April), 1977.

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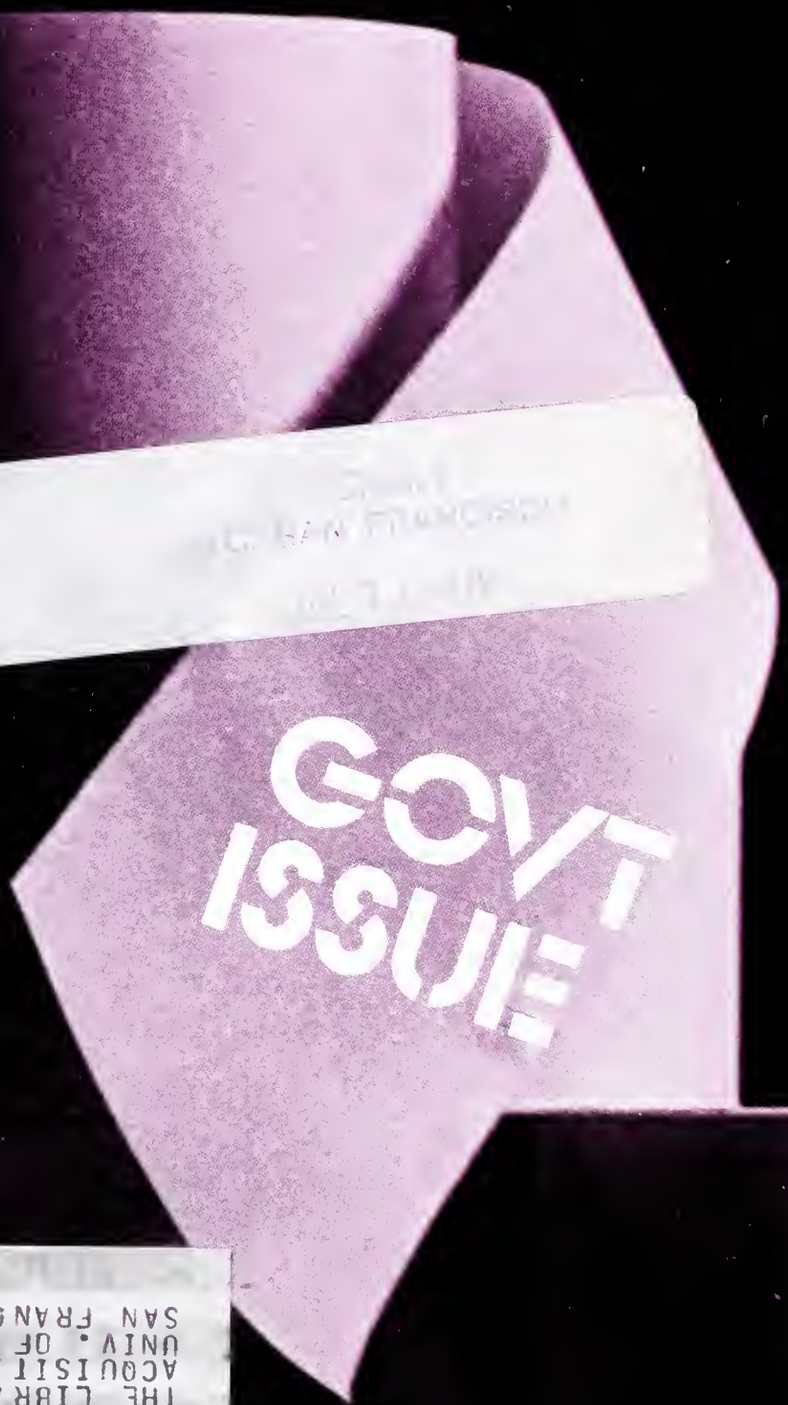

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***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures

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Withdrawal symptoms (similar to those with barbiturates, alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal/muscle cramps, vomiting, sweating). Keep addiction-prone individuals under careful surveillance because of predisposition to habituation/dependence. Not recommended for OB use

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence, can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

INJECTABLE Although promptly controlled, seizures may return; readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported, should these occur, discontinue drug

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam) therapy and are of no known significance

INJECTABLE Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure, employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension, caffeine and sodium benzoate for CNS-depressive effects. Dialysis is of limited value

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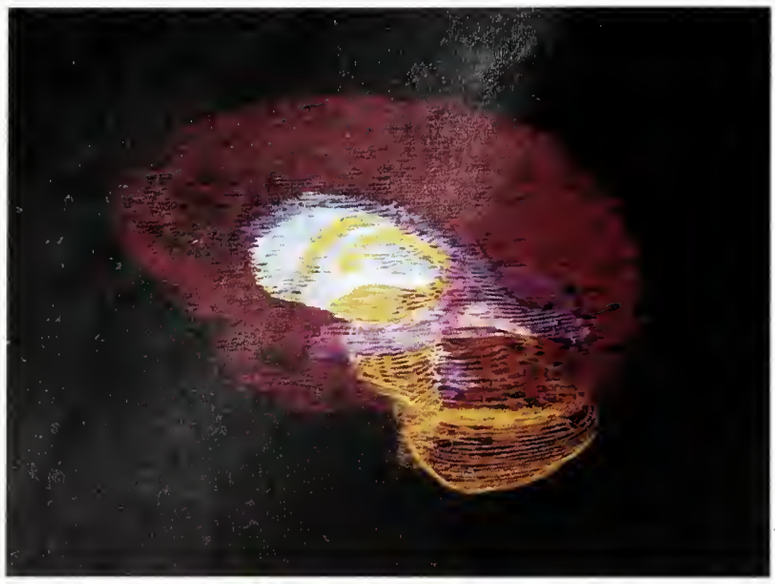

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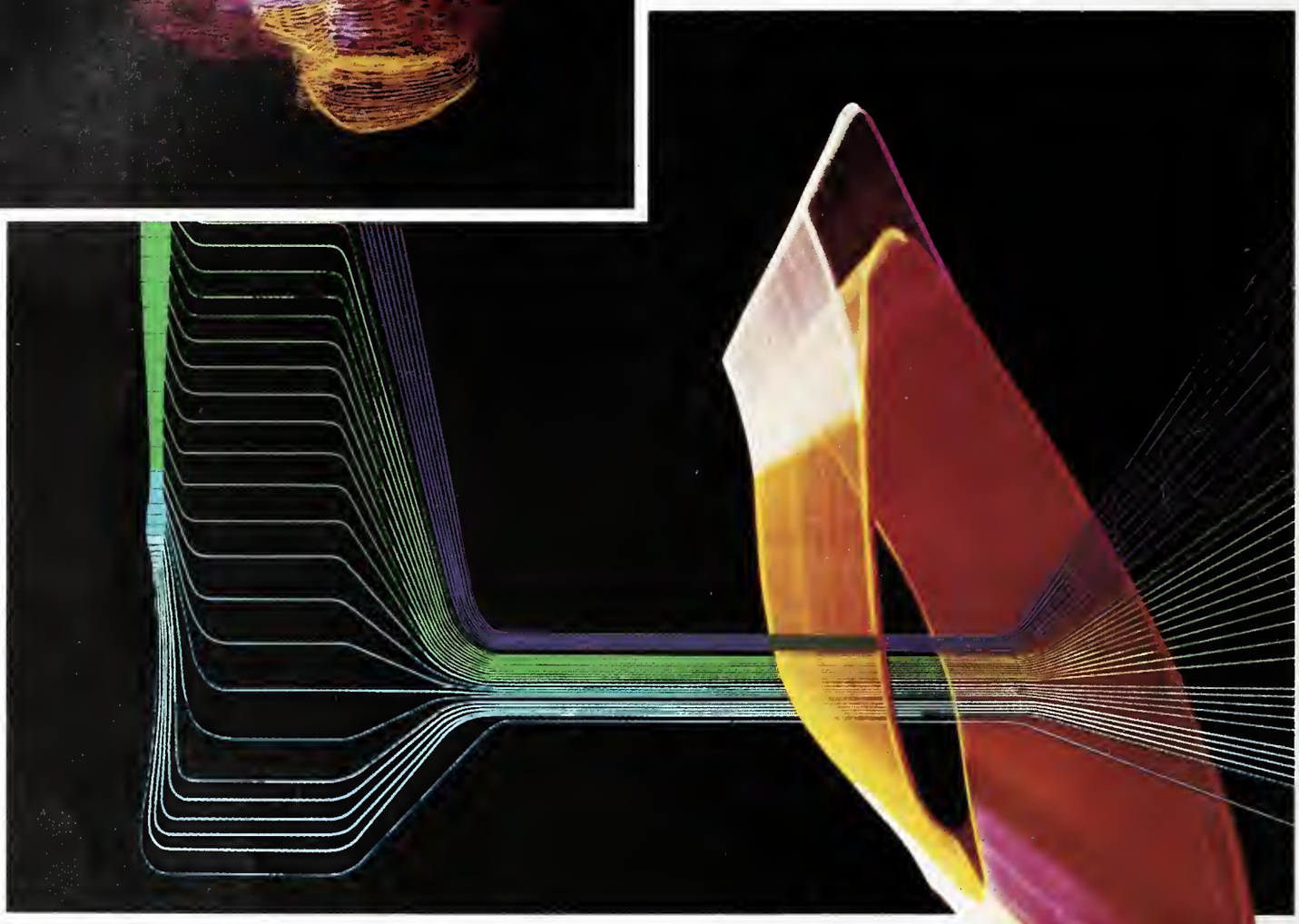

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On the cover

Increased licensing, more government regulations, and national standards for clinical laboratories are all parts of federal legislation now receiving serious attention in Washington. At the state level, legislation is now in effect that calls for disclosure of the net dollar amount of laboratory costs on a bill or statement to patients. For more on the national and state legislation, see page 26.

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Brief Summary of Prescribing Information
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Indications: Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

Important Note: When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

Contraindications: A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

Warning: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

Precautions: The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

Adverse Reactions: Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

Usual Dosage: Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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Please see brief summary for prescribing information.

TMA delegates approve new insurance trust

Meeting in San Antonio May 11–13, the Texas Medical Association's House of Delegates took actions on three issues of prime importance to Texas physicians.

The delegates approved creation of a professional liability insurance trust, supported TMA's cost containment activities, and modified a reorganization proposal to restructure the board, council, and committee components of TMA.

Creation of an insurance trust to provide professional liability insurance under Section 31.13 of HB 1048 was approved. The trust will be physician directed and accountable to participating doctors.

The Board of Governors for the trust are Francis O'Neill, MD, San Antonio; Walter A. Brooks, MD, Quanah; Ed W. Schmidt, MD, Pecos; C. W. Castle, MD, Liberty; Presley H. Chalmers, MD, Houston; Robert G. Thumwood, MD, Houston; Milton V. Davis, MD, Dallas; Richard L. Vardy, MD, Lubbock; and F. Warren Tingley, MD, Arlington.

Physicians in management, underwriting, claims review, loss control, and risk prevention will assist with planning for the trust. The trust will employ a staff of experienced insurance professionals for administration of the program.

A broad range of policy limits has been determined to be feasible, and protection will be based on the incidence of occurrences rather than on the time of suit or other legal actions. Initially, a seven-level risk classification system will be utilized to provide more equitable allocation of risk.

The actuarial analysis indicates that the trust could offer coverage at rates significantly lower than the Joint Underwriting Association and at rates competitive with the private market. On the basis of costs for coverage, the trust also could be competitive because of lower operational expenses, availability of investment income to pay losses, and absence of the profit motive.

Other advantages of the trust, cited by the Special Ad Hoc Committee on Self-Insurance Trust, include continued availability of professional liability coverage to TMA members on a voluntary basis; the assignment of risk among physicians as equitably as possible, with Texas's loss experience influencing heavily the costs to individuals and the group; adequate legal defense; and development of a public posture of contesting every defensible case.

Delegates approved a substantial portion of the Report of the Executive Board on the Association's Organizational Structure and Function, but voted to retain two policy boards and the present structure of officers. Structural changes will begin during and following the May 1979 Annual Session and will be completed by May 1980. The present size, composition, organization, and meeting schedule of the House of Delegates will remain the same.

Under the reorganization, the Executive Board and the Board of Trustees are both retained. The Executive Board will be responsible for implementation of policies of the House of Delegates; interim policy decisions; program direction, implementation, evaluation; and long-range planning. The Board of Trustees will be responsible for fiscal management, member services, and staff organization and performance.

Following the 1979 Annual Session, the council structure will be realigned and reorganized. Councils will include Socioeconomics, Legislation, Medical Education, Health Affairs, Health Facilities, Constitution and Bylaws, Annual Session, Communication, and Member Services.

After receiving information on the national and state voluntary cost containment panels, delegates endorsed the proposed plan of operation for the Texas Voluntary Cost Containment Panel. Delegates also supported an additional recommendation that VA and military hospitals in Texas be urged to participate fully in cost containment programs on the same basis as private hospitals with frank disclosure of operating costs, length of stay, capital improvement plans, and other pertinent data.

Executive Board will meet July 15 in Austin

TMA's Executive Board will meet July 15 at the Austin Hilton Inn.

Items on the agenda include a review of the House of Delegates actions on the Report of the Executive Board on the Association's Organizational Structure and Function and a report on TMA's 1978 priorities.

Board members will also consider a report on the implementation of the insurance trust and House of Delegates referrals to the Executive Board.

Five new members of the Executive Board include Mario Ramirez, MD, Rio Grande City, TMA president; Charles H. Wilson, MD, Wichita Falls, TMA vice president; D. Clifford Burross, MD, Wichita Falls, vice speaker

of the House of Delegates; George G. Alexander, MD, Pasadena, member of the Board of Trustees; and Ed Schmidt, MD, Pecos, chairman of the Council on Medical Legislation.

TMA council chairmen will also be invited to attend the July meeting.

Delegates consider legislative recommendations

Resolutions and recommendations dealing with federal and state legislation and programs comprised many of the issues considered by the Texas Medical Association's House of Delegates in session May 11–13 in San Antonio.

The House of Delegates supported a resolution expressing concern with DHEW methodology to establish prevailing and customary fee profiles under Medicare. When no profile has been established by a physician for a given procedure, the "gap fill" method is used. TMA will investigate this issue and will take appropriate action, including legal recourse if necessary, to drop the "gap fill" method from Medicare profile procedures. The methodology varies drastically from previous definitions of customary profile amounts and likely also will vary significantly from the definition of prevailing profile amounts.

Delegates voted to introduce a resolution before the AMA House of Delegates stating that Joseph Califano, DHEW secretary, has repeatedly demonstrated lack of concern for rural medical care. Delegates agreed that the secretary's lack of concern for citizens in the rural area is inconsistent with US traditions.

Delegates also supported TMA's role in formulating necessary legislation to ensure that rural communities in Texas have access to quality emergency medical services.

Delegates reaffirmed action taken earlier that the federal government make available information on comparison of costs, length of stay, type of facilities, and other pertinent data.

TMA's continuing opposition to HR 10460 and S 2410, the Health Planning and Resources Development Amendments of 1978, was supported by delegates. The House voted to continue to oppose the extension of certificate of need to physicians' offices and the decertification of health facilities and services. Delegates asked that the state, rather than the federal government, continue to be given authority to determine priorities for construction and funding of health care facilities.

During the next session of the Texas Legislature, TMA will encourage passage of legislation to insure that all Texas citizens be protected by a uniform, modern medical examiners system operating throughout the state.

Delegates reiterated support of long standing AMA and TMA policies and ethical considerations relating to billing and charges for laboratory services by physicians.

Delegates voted to call upon Congress to repeal PL 93-641, the Health Planning Amendments, and to ask for new legislation based on the principles of local determination. Further, the delegates noted, if a complete legislative overhaul is not possible within Congressional time limits, the law should be amended to respond to patients' needs. Delegates concurred that limiting federal power and shifting authority and responsibility for planning back to the local community would help to achieve this goal.

John M. Smith Jr, MD, TMA immediate past president, addresses the TMA House of Delegates meeting in the San Antonio Convention Center

Information and technical assistance on the health maintenance organization concept and other alternative health care plans will be made available to interested county medical societies and individual physicians. Delegates voted to encourage county medical societies to monitor development of alternative health care plans in their areas and be prepared to offer their comments on any proposals.

New TMA officers are selected

TMA's new president is Mylie E. Durham, Jr, MD, a Houston general surgeon.

Dr Durham received his MD degree from The University of Texas Medical Branch at Galveston, and has served as president of the Harris County Medical Society and chairman of the Harris County Hospital District board of managers.

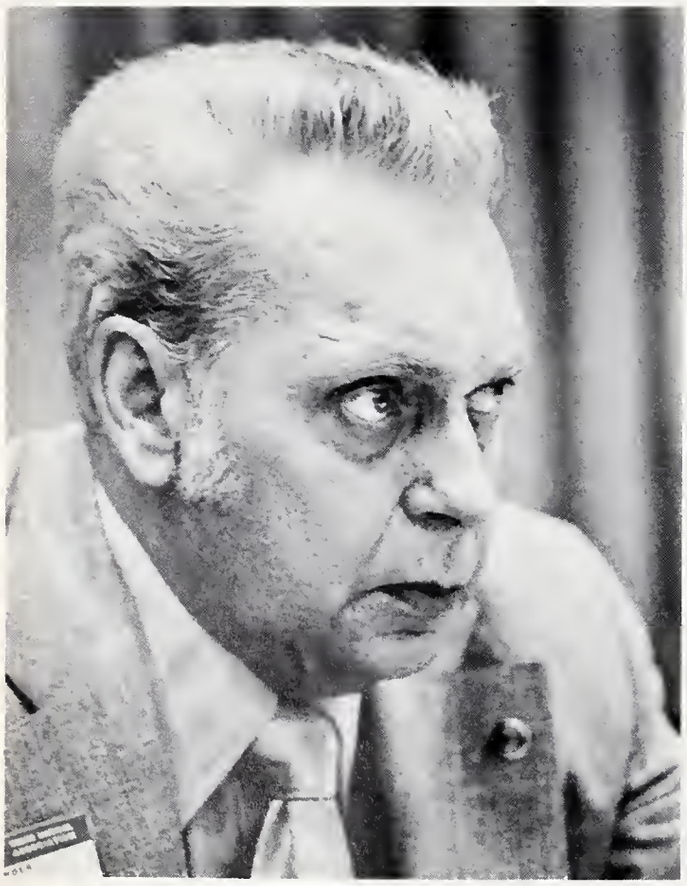
TMA's new president-elect is Mario Ramirez, MD, a Rio Grande City family practitioner, who will take office next May. Dr Ramirez's activities include the Children's Television Workshop Advisory Council, HEW National Advisory Health Council, Texas Rural Development Commission, and the Governor's Committee on Mental Retardation. Dr Ramirez is immediate past president of the Texas Academy of Family Physicians, a past recipient of the TMA Distinguished Service Award, and a recipient of the AMA Benjamin Rush Bicentennial Award.

A Wichita Falls general surgeon, Charles H. Wilson, MD, was named vice president. Dr Wilson, TEXPAC chairman, is also a member of the American College of Surgeons and the AMA.

New speaker of the House of Delegates is Milton V. Davis, MD, a Dallas thoracic surgeon. He has served as vice-speaker for three years and was a member of the Texas Medical Professional Liability Study Commission.

A new member of the Board of Trustees is George G. Alexander, MD, a Pasadena family practitioner. The new

Mylie E. Durham, Jr, MD, TMA president



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House vice-speaker is D. Clifford Burross, MD, a Wichita Falls family practitioner. Carlos D. Godinez, MD, a McAllen family physician, was re-elected to the TMA Executive Board.

Texas delegates will introduce twenty-two resolutions

The Texas delegation to the American Medical Association attended the 1978 Annual Convention of the AMA June 17–22 in St. Louis.

Texas delegates introduced 22 resolutions. They represent policy expressions adopted at the TMA House of Delegates session during the 1978 Annual Session in San Antonio in May.

The resolutions deal with a wide variety of topics including the AMA's national advertising program, AMA area meetings, prescriptions for contact lenses, federal government intrusion into the private practice of medicine, and the differential payment for services rendered by physicians at teaching hospitals.

Other resolutions address the areas of state Medicaid programs, medical care costs in federal institutions, health care for rural America, and the National Commission on the Cost of Medical Care.

Action by the AMA House of Delegates on the Texas resolutions will be provided in future issues of *Texas Medicine*.

Jose Rodarte, MD, to receive TMA service award

Jose G. Rodarte, MD, Temple, has been selected by the Texas Medical Association's House of Delegates to receive TMA's Distinguished Service Award.

The award, which will be presented to Dr Rodarte this fall in Austin, recognizes outstanding service to patients and the medical profession.

Dr Rodarte, a retired internist, served for 26 years on the Texas State Board of Medical Examiners under five Texas governors. He served six terms as board president.

A graduate of The University of Texas Medical Branch at Galveston, Dr Rodarte was on the senior staff of Scott and White Clinic in Temple from 1938 until his retirement in 1977. He was a trustee of the Scott and White Memorial Hospital Board during formation of the hospital and Scott, Sherwood, and Brindley Foundation in 1949. He served as secretary-treasurer of the board of directors of Scott and White Clinic from 1953 until 1972.

For more than 20 years, he was active in the Federation of State Medical Boards of the United States, serving on various committees. Dr Rodarte also was a member of the board of trustees of the Educational Commission for Foreign Medical Graduates.

He is a fellow of the American College of Physicians, and a member of the Bell County Medical Society, the Texas and American Medical Associations, Texas Diabetes Association, Texas Rheumatism Association, Texas Academy of Medicine, and the Texas and American Societies of Internal Medicine.

JCAH revises hospital services standards

Revisions in home care services standards, special care units standards, dietetic services standards, social work services standards, and respiratory care services standards were adopted by the Board of Commissioners of the Joint Commission on Accreditation of Hospitals at its April 1978 meeting.

The revisions will appear in the 1979 edition of the *Accreditation Manual for Hospitals* to be published in August 1978, and will be effective for accreditation decision purposes with respect to surveys conducted after Jan 1, 1979.

Changes contained in the new home care services standards include specifications for the time frame for review of policies and procedures, the patient care plan and patient records, and qualifications of the home care program director.

Six standards for special care units replace the existing four standards. The first five standards address the organization, integration, scope of services, direction, and staffing of all special care units. The sixth standard delineates additional requirements for burn, cardiac, cardiovascular surgery, respiratory, neonatal, and renal units.

The dietetic services section has been expanded from four standards to six. Significant revisions include clarification of the qualifications and roles of individuals who provide the food service and nutritional aspects of dietetic services, reorganization and update of written policies and

procedures, food-handling and food preparation precautions, and safety precautions, expansion of the diet manual handbook requirements, definition of the role of the dietetic department in disaster planning, and provision for quality control and the regular review and evaluation of the quality and appropriateness of nutritional care.

The expanded social work services section includes two completely new standards and replaces the current social services section of hospital standards. Contained in the new standards is a description of the appropriate orientation, training, and education required for social work personnel who provide social work services in the hospital setting. The standards also describe, in order of preference, various methods by which social work services may be provided.

The respiratory care services have been reorganized to clearly differentiate the responsibilities of the medical direction and the technical direction of services. The medical direction shall be provided by a physician member of the active medical staff. When the scope of services warrants, however, respiratory care services shall be supervised by a technical director whose responsibilities are detailed in the revised standards.

Texas health department questions regulations

The Texas Department of Health has serious reservations about the US Environmental Protection Agency's proposed regulations for the removal of organics from drinking water supplies.

In questioning the desirability of measures, the Department of Health has asked for a five-year postponement to allow for additional study of the possible ramifications of the proposed regulations.

If implemented, the regulations would apply to all systems serving more than 75,000 persons, or about half the people in Texas.

The federal guidelines would require the use of activated carbon to remove trace organics and synthetic organics—those compounds of carbon, hydrogen, and oxygen which have been made by man for commercial purposes. Concern has been expressed that oral consumption of some of these compounds has led to increased rates of certain types of cancer.

"There is currently no specific evidence that oral exposure to these chemicals in these concentrations is hazardous to human health," said David M. Cochran, chief of the Bureau of Environmental Health in testimony before the EPA in Dallas.

The activated carbon proposed as a filter material may present a hazard. Cochran said that the widespread use of activated carbon in the water works industry may expose those workers to greater risks than the hazards being prevented.

Also, in filtering out the potentially harmful synthetic organics, design engineers would have to institute a system to remove an unknown amount of the material to an unknown level. Although such organics can be measured under controlled laboratory conditions, the measurements are expensive and time consuming, and the methods used are not currently adaptable for the necessary in-plant monitoring.

The Texas Department of Health also questions the cost estimates provided by the EPA on the implementation of such filtering systems. For example, the city of Miami says it will spend ten times the EPA estimate if it has to install such a system. Such costs are inevitably passed on to the consumer.

Concluding his remarks before the EPA, Cochran said, "We are unable at this time to support efforts to mandate a treatment technique requirement which may be of questionable value, of no value whatsoever, or which may even present a health risk."

As the primary enforcement agency for Texas on these matters, the Texas Department of Health does not feel that sufficient data are available on all the consequences of the proposed techniques.

According to Cochran, if these regulations are soundly based, they should apply to all water systems, not just those serving populations in excess of 75,000.

In requesting the further study, the Texas Department of Health has termed the proposed organics regulations a shot-in-the-dark response to a potentially serious problem. The health department is asking the EPA to fund demonstration projects to answer the many questions raised by the proposed regulations.

Scientific test proves generic drugs not equal

A scientific research project has shown that different brands of the same drug do not always produce the same results in individual patients.

A research group at the Medical College of Virginia tested two different brands of tetracycline. Each was a dose of 250 mg. One was packaged in a capsule and the other in a tablet. They had been certified as producing identical results by the Food and Drug Administration.

In a report in the May 5 *Journal of the American Medical Association*, John H. Wood, MD, and colleagues

declared that the tablet purchased from the lowest bidder was inferior to the more expensive capsule product in raising blood and urine levels of the potent antibiotic in test volunteers.

The two were not the same, and a doctor prescribing by generic name only would not know whether his patient had received the more beneficial drug.

If the doctor writes a prescription for simple tetracycline, rather than specifying the brand packaged in the capsule, the patient may not gain sufficient protection to overcome the infection, Dr Wood says.

"Present batch certification (by the FDA) of tetracycline tablets does not ensure equivalency in performance relative to the innovator capsule product," he says.

TMA sponsors medical practice conferences

One program remains in 1978 in the TMA-sponsored Conferences on Medical Practice conducted for graduating seniors of the six medical schools annually.

TMA will present the 1978 program for graduating seniors at Texas Tech University School of Medicine in Fall 1978.

Other 1978 programs were presented at Baylor College of Medicine, Jan 6; UT Southwestern, April 14; UT Houston, April 21; UT Medical Branch, May 5; and UT San Antonio, March 31.

A special program will be sponsored at the Texas A&M University School of Medicine through the TMA Medical Student Section on a pilot basis for first-year students.

A record number of 279 medical students have participated in the conferences during the past year.

The program is cosponsored by Blue Cross-Blue Shield of Texas and is coordinated by the TMA Department of Membership and Professional Relations.

Coming next month

Articles scheduled for publication in August include a review of treatment of status epilepticus, colloid cysts as a cause of psychophysiologic abnormalities and sudden death, encephalopathy in cirrhotic patients, a review of Jakob Creutzfeldt disease, bizarre halogen eruptions, and voluntary hospital cost containment in Texas.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media*	1978 through 5/31	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	+15.7%	+38.0%	−23.1%	1.4%
Loomis-Sayles Mutual Fund	+ 1.4%	+25.3%	−18.2%	4.0%
Mercantile Bank Equity Fund	+ 1.2%	+56.0%	−16.6%	B
Mercantile Bank Fixed Income Fund	− 1.3%	+34.6%	+26.9%	B
T Rowe Price Growth Stock Fund	+ 6.1%	+33.9%	−33.8%	2.1%
T Rowe Price New Income Fund	− 3.3%	+ 6.6%	N/A	8.0%
Stein Roe & Farnham Balanced Fund	+ 1.8%	+25.8%	−23.8%	3.5%
Standard & Poor 500 Stock Average	+ 2.3%	+38.8%	−19.4%	
Dow Jones Industrial Average	+ 1.1%	+34.8%	−18.5%	

*Includes reinvested capital gains distributions.

A Mutual Fund performance includes reinvested capital gain distributions.

B Mercantile HR-10 Equity and Fixed Income Funds make no distributions. All earnings are retained in the respective funds.

MEDICAL NEWSMAKERS

CREED W. ABELL, PHD, Galveston, professor of human biological chemistry and genetics at The University of Texas Medical Branch, has been appointed director-designate of the biochemistry division.

JOHN J. KAVANAGH, MD, Austin, has been appointed permanent commissioner of the Texas Department of Mental Health and Mental Retardation. Dr Kavanagh has been serving as acting commissioner since March 1.

The Grand Prairie Chamber of Commerce has presented a Distinguished Service Award to H. REG McDANIEL, MD. Dr McDaniel, a pathologist, is director of laboratories and medical education at Grand Prairie Community Hospital.

HARRIS GRANGER, PHD, associate professor of medical physiology at Texas A & M University College of Medicine, has received the American Physiological Society's first Harold Lamport Award as its outstanding young cardiovascular investigator.

The National Institute on Drug Abuse has presented the Pacesetter Award to S.B. SELLS, PHD, Fort Worth, for his research on drug-related problems and treatment. Dr Sells is research professor and director of the Institute of Behavioral Research at Texas Christian University.

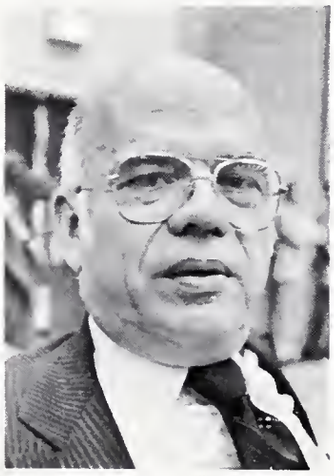
The new chief of the Bureau of Long Term Care of the Texas Department of Health is ROBERT BERNSTEIN, MD. Dr Bernstein, former commander of Walter Reed Army Medical Center, is certified by the National Board of Medical Examiners, is a diplomate of the American Board of Internal Medicine and is a life member of the American College of Physicians.

SAM A. NIXON, MD, and DONALD S. WINSTON, MD, both of Houston, have been appointed to the AMA Council on Continuing Physician Education.

MARIO RAMIREZ, MD, president-elect of the Texas Medical Association, has been honored as the "Family Doctor of the Year," by the American Academy of Family Physicians and *Good Housekeeping Magazine*. President Carter presented the award to Dr Ramirez, Rio Grande City, saying, "This is an achievement this quiet man has realized without ever bragging on himself or trying to publicize his service to mankind. He represents the finest aspects of the medical profession."

John J Kavanagh, MD

Robert Bernstein, MD



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***Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Probably" effective: When taken by the sublingual or chewable route, Isordil Sublingual and Chewable Tablets are indicated for the treatment of acute anginal attacks and for prophylaxis in situations likely to provoke such attacks.
"Possibly" effective: When taken by the oral route, Isordil is indicated for the relief of angina pectoris (pain of coronary artery disease). It is not intended to abort the acute anginal episode, but is widely regarded as useful in the prophylactic treatment of angina pectoris.
Final classification of the less-than-effective indications requires further investigation.

Contraindication: Idiosyncrasy to this drug.

Warnings: Data supporting the use of nitrites during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety.

Precautions: Tolerance to this drug and cross-tolerance to other nitrites and nitrates may occur.

Adverse Reactions: Cutaneous vasodilation with flushing. Headache is common and may be severe and persistent. Transient episodes of dizziness and weakness as well as other signs of cerebral ischemia associated with postural hypotension may occasionally develop. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents. An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite, and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur even with the usual therapeutic dose. Alcohol may enhance this effect. Drug rash and/or exfoliative dermatitis may occasionally occur.

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CAPITAL COMMENTS

AUSTIN NOVEMBER ELECTIONS. Incumbent Sen John Tower (R), will face Democratic nominee Bob Krueger and announced independent candidate Hank Grover in the November election for US Senator from Texas.

AUSTIN SENATE RACES. In the Texas Senate elections, one incumbent, Sen Frank Lombardino, San Antonio, was defeated in the May primary. Incumbents and candidates who are up for reelection in the Texas Senate who have no general election opposition are Ed Howard, Texarkana; Peyton McKnight, Tyler; Roy Blake, Nacogdoches; Lindon Williams, Houston; Chet Brooks, Pasadena; Lloyd Doggett, Austin; Pete Snelson, Midland; Raul Longoria, Edinburg; and Ray Farabee, Wichita Falls. Sixteen senators were not up for reelection this year. There are four senators who served in 1977 who did not seek reelection. They are A. M. Aikin, Paris; Don Adams, Jasper; Kent Hance, Lubbock; and Max Sherman, Amarillo.

AUSTIN HOUSE OF REPRESENTATIVES RACES. In the Texas House of Representatives elections, 19 incumbents did not seek reelection. Four incumbent members of the Texas House of Representatives were defeated in the primary elections. There were 86 candidates or incumbents who by virtue of their primary nomination will serve in the opposition in November.

WASHINGTON MANDATORY ASSIGNMENTS. Rep Toby Moffett (D-Conn) has requested cosponsors for a bill that would require doctors working in hospitals to accept assignments for services performed in the hospital. Hospitals would be required to enforce this in order to receive Medicare reimbursement.

CALIFORNIA COST CONTAINMENT. In a report on a study financed by DHEW's Health Care Financing Administration, the Rand Corporation has cautioned California's state government against enacting hospital cost control legislation. "Rate regulatory programs tried elsewhere failed to hold down costs significantly," a Rand policy analyst warned. Copies of the report "The California Health Facilities Commission—A Case Study of Government Regulation" are available for $7 from the Rand Corporation Publication Department, 1700 Main Street, Santa Monica, Calif 90460.

WASHINGTON LOBBYING LEGISLATION. HR 8494, the public disclosure of lobbying act of 1978, passed the House 259–140, thus expanding and making more stringent disclosure requirements for groups that lobby Congress. Key amendments would force groups that must register as lobbyists to disclose attempts to promote grass roots mail, disclose names of organizations that contributed more than $3,000 to them, and require the disclosure of lobbying activities by unpaid chief executives of lobbying groups. The house bill will go to the Senate where the Governmental Affairs Committee is considering an even stronger measure.

LOUISIANA LABORATORY BILLING INFORMATION. A Louisiana bill would prohibit licensed practitioners from paying laboratories for tests and thereafter billing patients, unless the practitioner discloses in his bill or statement to the patient or other person the name and address of the laboratory and the net amount paid, or to be paid, the laboratory.

WASHINGTON FIXED FEE SCHEDULE. Health Care Financing Administration (HCFA) Chief Robert Derzon has recommended replacing the usual, customary and reasonable method of determining what a physician will get paid under Medicare and Medicaid with a statewide, fixed fee schedule. "If properly designed, fixed fee schedules could stop physicians from setting their own fees, eliminate urban rural fee differences, reward primary care practitioners instead of anesthesiologists, pathologists and radiologists, and ultimately correct physician and specialty maldistribution," Derzon said in a memo to DHEW Secretary Joseph Califano. Revealed during hearings before the House Subcommittee on Oversight and Investigations, Derzon's memo laid the blame for high health care costs on the usual, customary and reasonable fee system.

WASHINGTON TAX DEDUCTIONS. The House Ways and Means Committee has voted to eliminate the federal income tax deduction for those who make political contributions. Under present law, US taxpayers are allowed to claim a deduction of up to $100 ($200 on a joint return) for political contributions or a credit equal to one-half of the amount contributed, up to a maximum of $25 ($50 on a joint return). Texas members voting to keep the deduction

were Congressmen Omar Burleson, J. J. "Jake" Pickle, and Bill Archer.

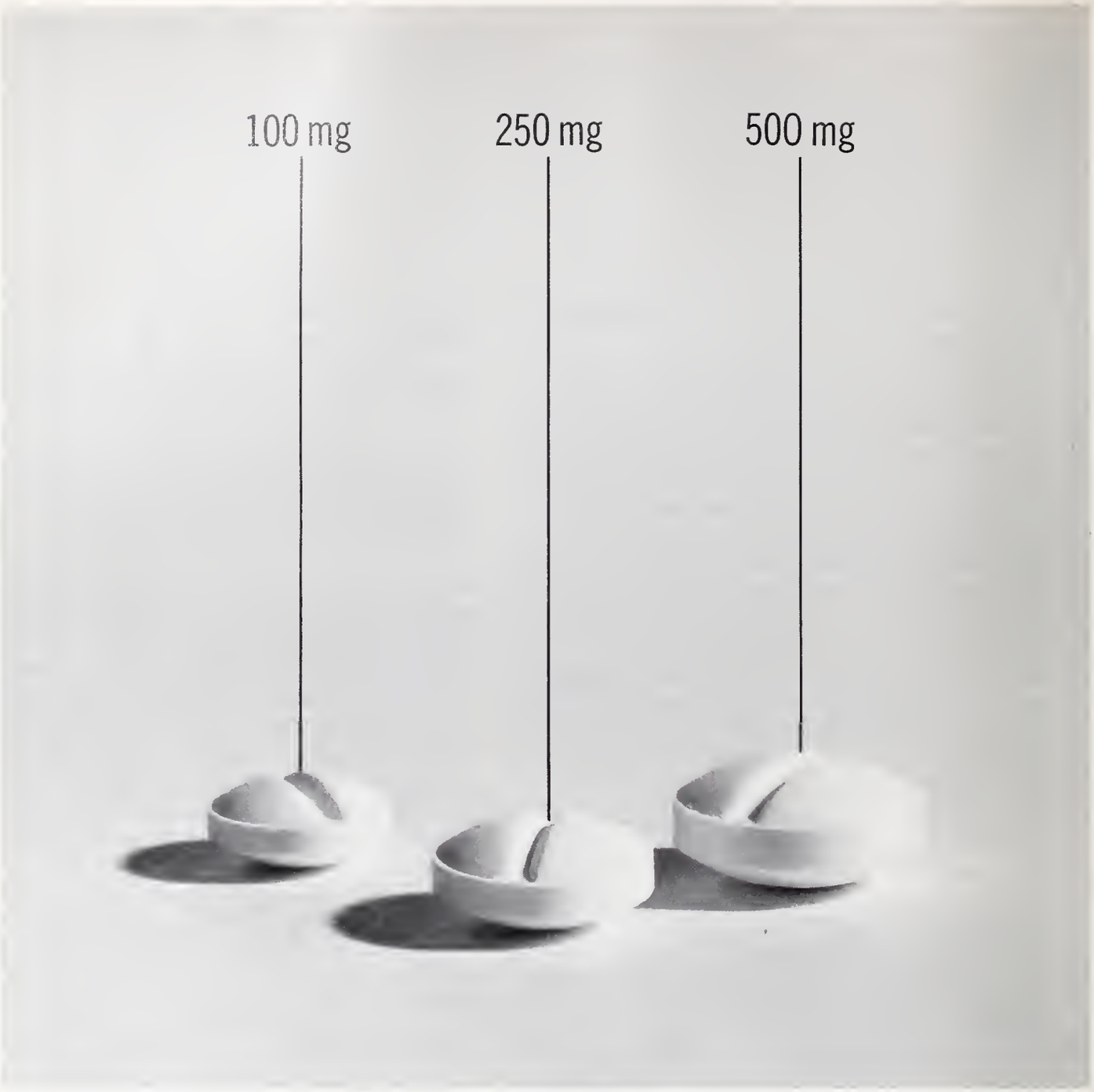
WASHINGTON NATIONAL HEALTH INSURANCE. According to Sen Carl Curtis (R-Neb) a recent column by James Kilpatrick succinctly summarizes why national health insurance is an idea whose time has passed. He points out the lack of popular support for this expensive program; the growing disillusionment with federal programs generally; the awareness of the very dramatic cost escalations that accompany any one of the programs advanced; and the distrust of either the efficiency or the equality of a new massive bureaucratic structure. He also points out that the need for national health insurance has never been demonstrated and that the current system of targeting aid to various sectors in the medical care arena results in a health care coverage system which meets demonstrated needs.

WASHINGTON CATASTROPHIC HEALTH LEGISLATION. Sens Russell Long (D-La), Abraham Ribicoff (D-Conn), Herman Talmadge (D-Ga), and Robert Dole (R-Kan) have introduced S 3105, the Catastrophic Health Insurance and Medical Assistance Reform Act of 1978, a bill similar to the Long-Ribicoff national health insurance bill introduced in previous Congresses. The new health insurance proposal has three essential parts. The first part includes catastrophic insurance for all Americans and would become effective Jan 1, 1980. The program would cover all American citizens after they have incurred medical expenses of $2,000 or have been hospitalized for 60 days. The benefits would be identical to those under Medicare, with no upper limits on hospital stays. Employers could choose to cover employees for catastrophic costs through private health insurance or through the bill's federal program. The second part consists of a new, basic health benefit program for low income individuals and families. Replacing Medicaid, the new program would provide, effective Oct 1, 1980, basic health benefits coverage with uniform national eligibility standards for all low income individuals or families. The third part of the bill includes a new and voluntary certification program for private basic health insurance policies.

WASHINGTON MEDICARE PAYMENTS LIST. HEW's list of physicians who received Medicare payments in 1977, scheduled to be available for public inspection April 30, has been delayed. No new disclosure date has been announced.

WASHINGTON MEDICARE LEADER RESIGNS. Thomas Tierney, chief of the Medicare programs for the past 11 years, has resigned and will move to San Francisco as director of the Social Security Administration regional office. Tierney has been head of the Medicare programs almost since their inception in 1966.

WASHINGTON CORPORATE FUNDS IN ELECTION INITIATIVES. The US Supreme Court has struck down a Massachusetts law that prohibited corporations from spending to influence the outcome of ballot initiatives. In a 5–4 decision, the court decided that state laws banning corporate spending in this area are unconstitutional restrictions under the First Amendment, the guarantee of free speech. The Supreme Court decision contains broad implications for the future role of business in the political arena. Federal law has banned the use of corporate funds for election purposes since 1907. Left unanswered is the question of whether it is constitutional to ban corporate contributions aimed at electing candidates to public office. In a footnote, the court majority cautioned that its decision implies no comparable right in the quite different context of participation in a political campaign for election to public office. The Texas Secretary of State has announced that the current law in Texas prohibiting corporate contributions on an issue on a ballot will not be enforced due to the Supreme Court opinion.



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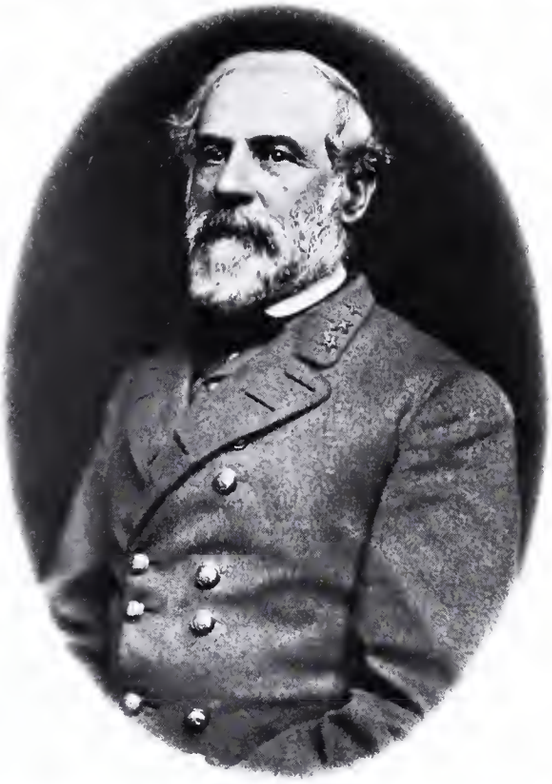

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*INDICATIONS—Based on a review of this drug by the National Academy of Science-National Research Council and/or other information, FDA has classified the indication as follows:

"Possibly" effective: For long-term therapy of chronic angina pectoris. Prolonged therapy may reduce the frequency or eliminate anginal episodes, improve exercise tolerance, and reduce nitroglycerin requirements. The drug is not intended to abort the acute anginal attack.

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS—No specific contraindications are known.

PRECAUTIONS—Since excessive doses can produce peripheral vasodilation, the drug should be used cautiously in patients with hypotension.

ADVERSE REACTIONS—Adverse reactions are minimal and transient at recommended dosages. Instances of headache, dizziness, nausea, flushing, weakness or syncope, mild gastrointestinal distress and skin rash have been noted during therapy. Rare cases of what appeared to be an aggravation of angina pectoris have been reported, usually at the initiation of therapy. On those uncommon occasions when adverse reactions have been persistent or intolerable, withdrawal of medication has been followed promptly by cessation of undesirable symptoms.

DOSAGE AND ADMINISTRATION—The recommended dosage is 50 mg (2 tablets) three times a day, taken at least one hour before meals. In some cases higher doses may be necessary but a significantly increased incidence of side effects is associated with increased dosage. Clinical response may not be evident before the second or third month of continuous therapy.

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TMA's Annual Session attracts more than 5,000—with activities for everyone

Registration crowds swelled to more than 5,000 at the San Antonio Convention Center during the 1978 Texas Medical Association Annual Session in San Antonio. TMA's Annual Session began May 10 and continued through May 14.

Travis Smith, MD, Abilene, outgoing speaker of the TMA House of Delegates, addresses the opening session of the House.

Charles Max Cole, MD, (far right) Dallas, presents information before the Special Reference Committee on TMA Reorganization.

They're asking for more ice cream. One of the most popular places was the Borden's exhibit, providing plenty of good ice cream.

John M. Smith, Jr, MD, San Antonio, immediate past president, delivers his presidential address to the TMA House of Delegates. In his address, Dr Smith stressed TMA's continuing commitment to cost containment and urged more emphasis on private insurance carriers' roles.

Merle W. Delmer, MD, San Antonio, addresses an issue before a session of the TMA House of Delegates. Waiting behind Dr Delmer to speak is Sam Nixon, MD, Houston.

Mrs Dale Willimack, director of TMA's Department of Annual Session office, and Nathan Cedars, MD, Stephenville, outgoing chairman of the TMA Council on Annual Session, go over meeting details.

John H. Budd, MD, AMA president (left), Sam Nixon, MD, Houston, TMA delegate to the AMA, (center) and Charles H. Wilson, MD, Wichita Falls, newly elected TMA vice president, discuss AMA matters during the AMA open hearing. Dr Budd spoke at the luncheon for the House of Delegates. Dr Budd told delegates the only way cost containment can ever work in this country is for everyone—especially patients—to do his or her part in holding the line on health care expenses.

Jetta (Mrs John C.) Koch, (left) Lufkin, outgoing TMA Auxiliary president, installs Pat (Mrs Mylie E.) Durham, Houston, as new president of the TMA Auxiliary.

Nuclear reactors are the safest and cleanest way to produce energy, Edward Teller, PhD, told Texas physicians as he addressed the Friday luncheon during Annual Session. Dr Teller, university professor emeritus, University of California, and associate director emeritus, Lawrence Livermore Laboratory, has devoted a major portion of his time to energy issues including nuclear energy.

More than 100 physicians and guests ran through the San Antonio streets Saturday morning in TMA's first three-mile Run for Fun.

John M. Smith, Jr, MD, (left) San Antonio, outgoing TMA president, and Mylie E. Durham, MD, Houston, TMA president, participate in installation ceremonies during Saturday's luncheon.

James S. Todd, MD, chairman of the Board of Trustees of the Medical Society of New Jersey, addresses a TMA general luncheon.

A. E. "Abe" Lemons, head basketball coach, intercollegiate athletics for men, University of Texas at Austin, addresses a Symposium on Sports Medicine.

Bryan V. Williams, MD, Houston, chairman of TMA's Committee on Continuing Education, enters into discussion during a meeting to review the Texas Medical Association for reaccreditation for continuing medical education. TMA was first accredited in 1975 by the American Medical Association. Jesse D. Rising, MD, director of the Division of Continuing Education of the University of Kansas, College of Health Sciences, Kansas City, represented the Liaison Committee on Continuing Education during the survey.

Walter Brooks, MD, (left) Quanah, and John McHenry, MD, Houston, vote in the TEXPAC (Texas Medical Political Action Committee) sponsored preference poll for Texas governor and attorney general and US Senator. Republican candidates took the lead in the voting.

One of more than 200 exhibits that were displayed in the San Antonio Convention Center.

Fiesta San Antonio gowns were featured as the TMA Auxiliary celebrated its 60th annual convention during Annual Session. Five former queens and princesses of the San Antonio Fiesta modeled royal gowns worn during past fiestas.

More red tape in clinical laboratory legislation in Washington and Texas?

WASHINGTON

Increased licensing, more government regulations, and national standards for clinical laboratories are all parts of federal legislation now receiving serious attention in Washington.

For several sessions, Congress had considered clinical laboratory improvement acts, and the Senate has passed its version of the Clinical Laboratory Improvement Act of 1978. The House is getting ready this summer to debate its version of the legislation.

HR 10909, passed by the House Ways and Means Committee, mandates national standards for regulation of clinical laboratories through an inspection and licensing program, setting out rules for quality control methods, minimum standards on recordkeeping, and staff qualifications.

The legislation also includes overall laboratory proficiency tests, technician proficiency tests, and anything else the DHEW Secretary might include at his discretion.

The standards would become final one year after passage of the bill, and immediately affect laboratories working in interstate commerce. Intrastate laboratories would be subject to the standards after a two-year grace period.

All laboratories would be licensed and inspected by federal employees except those located in states having primary enforcement responsibility.

According to the House legislation, laboratories located in physician offices housing no more than five physicians and doing work only for their patients would be conditionally exempt. Laboratories in rural areas serving only the immediate locale and certain specialty laboratories would also be conditionally exempt.

During the first year after enactment of the bill, the DHEW Secretary would conduct a study assessing the overall quality of physician office laboratory services, and the impact on quality provided by such mechanisms as proficiency testing programs, quality control measures, personnel qualification standards, and other areas.

Any laboratory refusing to participate in the DHEW Secretary's study would automatically become subject to meeting in full all the requirements of the national standards.

Certain standards included in S 705, the legislation passed by the US Senate are the same as the House legislation. However, there are some differences.

Physicians wishing to continue operation of an in-house office laboratory without submitting to the federal licensure and inspection procedures would be required to apply for an exemption from the DHEW Secretary. To qualify for the exemption, the applicant would present evidence that approved quality control measures and personnel qualification standards were already practiced in the laboratory.

The Senate legislation would also establish an Advisory Council on Clinical Laboratories to advise the DHEW Secretary on national standards.

The Senate legislation would also establish a DHEW Office of Clinical Laboratories to administer the licensing, applications, inspection, and reporting functions mandated by the law. The DHEW Secretary would have three years to report to Congress using data from physician exemption applications to determine whether physicians' offices should be drawn into compliance with the national standards.

At least one Texas Congressman has expressed his concern about the proposed legislation. Clinical laboratory costs will skyrocket with the enactment of legislation now before Congress, charged Rep James Collins (R-Tex).

He said the Clinical Laboratory Improvement Act will require small hospitals to hire additional qualified technologists at a total cost of more than $50 million.

Rep Collins said additional proficiency examinations and practical examinations "will add severely to the cost and paperwork burden, and mandatory proficiency tests would apply to many thousands of otherwise exempt labs at an average going price of $300 per lab."

The lawmaker said laboratories have had the lowest rise in cost of any segment of the health care sector. "To absorb the costs of the proposed regulations, the smaller labs would have to merge or go out of business, reducing the number of clinical laboratories in the health care marketplace."

Said Rep Collins, "The resulting effects of this legislation will expand the already bloated HEW bureaucracy while ignoring the tremendous cost and time increase of complying with government paperwork and standards—an increase which will add significantly to the patient's lab fee. The clinical laboratory industry will suffer severely from burdensome HEW requirements designed to eliminate competition; rural areas will find it impossible to meet the proposed standards; and the few exemptions that exist for clinical labs will inevitably be removed once

the regulations are in operation."

The next step for the legislation is consideration by the House of Representatives. The House may consider the laboratory legislation later this summer.

TEXAS

At the state level, Texas legislators meeting in session in 1977 passed a clinical laboratory billling law, HB 1309.

Since then, the Texas State Board of Medical Examiners, the group responsible for enforcing the legislation for physicians, has held a series of hearings, and requested an attorney general's opinion about several areas of the new law. The attorney general's opinion was officially rendered in March of this year and called for disclosure of the net dollar amount of laboratory costs on a bill or statement to the patient. The law applies to laboratories organized as separate entities from the physician's office.

During the recent meeting of the Texas Medical Association in San Antonio, its House of Delegates reiterated support of long standing AMA and TMA policies and ethical considerations on billing and charges for laboratory services by physicians.

Delegates voted to refer HB 1309 to the Council on Medical Legislation for possible amendments during the next session of the Texas Legislature. Specifically, the council was asked to consider ways to eliminate unduly burdensome administrative difficulties imposed on physicians complying with the new Texas law.

At present, the law requires physicians, dentists, podiatrists, veterinary medical doctors, and chiropractors who use outside laboratories to disclose on bills the name and address of the laboratory and the net amount paid for the test or test series.

The law does not apply to a physician who has his own laboratory, nor does it apply to x-rays.

The attorney general's opinion came in response to a series of questions from the Texas State Board of Medical Examiners.

Although professional associations or other organizations of physicians need not comply with the legislation, the professional members of that organization are subject to its terms, the attorney general advised.

As stated, the law applies to agreements with any laboratory organized as a separate entity.

In advising the state board, the attorney general said that the statute requires disclosure of a net dollar amount rather than a percentage of the total amount paid for laboratory services. Disclosure is not accomplished by the posting of a schedule of costs or notification to the patient that such information is available on request, but must be made known to the patient on the bill or statement.

According to the opinion, the Texas State Board of Medical Examiners, in addition to its authority to deny an application for license for violation of the statute, is also empowered to revoke or suspend the license of any physician who is found to have violated that statute.

The complete opinion and comments were carried in the June issue of *Texas Medicine*.

TexasMedicine awards competition

Be published in *Texas Medicine*, the monthly journal of the Texas Medical Association, and win a $250 cash award.

Two new categories include Category A, a paper written in a training situation by a Texas medical student, graduate student, resident, or fellow under age 35; and Category B, a paper written by any Texas physician under age 35 not in a training situation.

Articles must deal with a subject within the realm of the basic sciences or clinical medicine and must be original and unpublished. Manuscripts should include either Category A or Category B designation with information about the author's training or practice situation. No maximum nor minimum length is required. Criteria for the judging will be excellence of scientific work and competence in writing. DEADLINE for entries is August 1, 1978.

Mail entries and inquiries to Executive Editor, *Texas Medicine*, 1905 N. Lamar Blvd., Austin, Texas 78705 or call 512-477-6704.

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* **INDICATIONS:** Based on a review of this preparation by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows: **Possibly effective:** In cutaneous candidiasis; superficial bacterial infections; the following conditions when complicated by candidal and/or bacterial infection: atopic, eczematoid, stasis, nummular, contact, or seborrheic dermatitis, neurodermatitis, and dermatitis venenata; infantile eczema; lichen simplex chronicus; and pruritus ani and pruritus vulvae.

Final classification of the less-than-effective indications requires further investigation.

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WARNINGS: Because of the potential hazard of nephrotoxicity and ototoxicity, prolonged use or use of large amounts of this product should be avoided in the treatment of skin infections following extensive burns, trophic ulceration, and other conditions where absorption of neomycin is possible.

Usage in Pregnancy: Although topical steroids have not been reported to have an adverse effect on the fetus, the safety of topical steroids during pregnancy has not been absolutely established; therefore, do not use extensively on pregnant patients, in large amounts, or for prolonged periods.

PRECAUTIONS: Watch constantly for overgrowth of nonsusceptible organisms (including fungi other than candida). Should superinfection due to nonsusceptible organisms occur, administer suitable concomitant antimicrobial therapy; if favorable response is not prompt, discontinue the preparation until adequate control by other antiinfectives is effected. If extensive areas are treated or if the occlusive technique is used, the possibility exists of increased systemic absorption of the corticosteroid; suitable precautions should be taken. If irritation develops, discontinue the product and institute appropriate therapy.

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For full prescribing information, consult package insert.

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MEDICINE AND THE LAW

US SUPREME COURT UPHOLDS CONSTITUTIONALITY OF FEDERAL HEALTH PLANNING PROGRAM

A US District Court in Raleigh, NC,[1] considered a challenge to the National Health Planning and Resources Development Act of 1974 on Sept 22, 1977. To qualify for grants under federal health programs, the act required the state to implement and administer a state certificate of need program for new institutional health services proposed to be offered within the state.

The district court upheld the act in all respects, thus signaling judicial approval of the federal regulatory approach.

The decision

The State of North Carolina, concerned by an earlier decision of its state supreme court that a certificate of need program violated its state constitution, objected to the imposition of the condition for further receipt of federal funds for health related programs. The state argued that the requirement was a violation of the Tenth Amendment, which reserves powers to the states, since it compelled the state to amend its constitution (in view of the state court's decision), and it amounted to an unconstitutional interference with the state's legislative and constitutional processes.

The AMA and the North Carolina Medical Association also participated in the case, claiming the condition invalid because it sought to convert private facilities into public facilities subject to federal regulation, and interfered with the physician-patient relationship by rationing health resources for reasons unrelated to promotion of high quality care.

The act

The National Health Planning and Resources Development Act of 1974, 42 USC §300k *et seq*, was stated to be the result of congressional concern that the many unneeded hospital beds available in the nation imposed an unnecessary and exorbitant financial burden on furnishing of required health care, that there was an uneven distribution of health care facilities, and that some areas were oversupplied and others were woefully deficient in health care facilities. To achieve more efficient and economical use of health resources, the act conditioned further health grants from federal funds upon the state's enactment of a certificate of need program. Under guidelines in the act, the state health planning and development agency was to approve only those services, facilities, and organizations "found to be needed" in the state.

Constitutional background

Although the federal act creating this condition was based upon the power to tax and spend, the arguments propounded by the state in opposition to the condition can only be understood in the light of prior cases involving exercise of the federal commerce power. In the past, Congress has regulated areas which appear to be only marginally related to interstate commerce where some link to interstate commerce could be found or hypothesized. The Supreme Court has considered and upheld statutes regulating things as local in nature as production of wheat for consumption on the farm where it was grown, racial discrimination in small out-of-the-way barbeque stands, loan-sharking, and possession of firearms by convicted felons—all under the congressional power to regulate commerce.

In 1975, in a case involving the power of the federal government to regulate minimum wages and maximum hours of state employees, the US Supreme Court fashioned a limit on the exercise of the commerce power, based on the reserved powers of the states under the Tenth Amendment. The Supreme Court ruled that in attempting to require states to make expenditures for minimum wages, or in limiting the number of hours states could require their employees to work, the national government had overstepped the bounds of reserved powers to the states, and had enacted a program which "impaired the states' ability to function effectively within the federal system."

With that relatively new constitutional doctrine in mind, North Carolina attempted to fashion a similar limit to the power of the national government to legislate under the so-called "spending power." Conceding that the spending power included the power to impose terms and conditions upon fiscal grants to the states, North Carolina argued that while such conditions could be attached, they should not be arbitrary, should not be unrelated to the legitimate purposes of federal health legislation, and should not invade the sovereign rights of the states. The state argued that although conditions could be attached, there were limits to the spending power analogous to those in the exercise of the commerce power, and that the requirement for a state certificate of need program was an invalid, coercive condition prohibited by the reserved powers concept of the Tenth Amendment.

North Carolina argued that the condition was particularly onerous as applied to it, because of that state's supreme court decision holding a certificate of need mechanism invalid as a violation of that state's constitution. The state argued that it was faced with a loss of federal aid which could only be avoided by a state constitutional amendment. This, it argued, was coercive, and not simply an

inducement to participate in the federal assistance programs. The state conceded federal authority to induce a state statute, but to induce a state constitutional amendment seemed to bite too deeply into state sovereignty.

The district court rejected every argument propounded by North Carolina and the medical associations. Recognizing the national purpose in efficient use of funds granted to the states in federal health assistance programs, the court readily approved attaching a condition to such grants when such condition related to the legitimate national interest in health. As to the state's coercion argument, as particularized by its own constitutional problem, the court was unimpressed. To allow North Carolina's argument, the court said, would allow one state "by some oddity of its constitution" to invalidate a legitimately imposed condition. The next step, theorized the court, would be for a state, dissatisfied by a valid federal condition, to veto national legislation by the simple expedient of an amendment to the state constitution, or by securing a decision of its own state supreme court. Valid federal programs, said the court, "[do] not exist at the mercy of the state constitutions or decisions of state courts."

Impact on private health care

The AMA and the North Carolina Medical Association intervened, arguing that the act was invalid because it sought to convert private facilities into public facilities subject to federal regulation, and because it interfered with the physician-patient relationship by rationing health resources for reasons unrelated to promotion of high quality care. Both of these arguments were rejected. The question, given the court's holding on the earlier points, was simply whether the state, in the exercise of its police power, could regulate private health care by imposing certificate of need requirements for private construction.

The court was unpersuaded by the reasoning of the North Carolina decision in which a certificate of need program was declared unconstitutional, noting that four other courts had considered the same question and found such regulation to be a valid, reasonable, and entirely proper application of the state's police power.

Impact on state's health care program

The conditions-tied-to-federal-funds approach received its initial support in a 1937 Supreme Court case which recognized that it is not coercive simply to tempt a state by federal grant to comply with conditions attached to such grant. A well-known example of a similar program is the 55 mph speed limit, imposed by states as a condition for receipt of federal highway funds.

Should the state, in the exercise of its independent sovereignty, determine that the condition attached to the grant violates the state's constitution or laws, then the state remains free to decline the federal grants which it might otherwise receive, and thereby retain its integrity and individuality. This approach should be carefully distinguished from the situation where a federal statute directly requires state expenditures (as in federal imposition of minimum wages to be paid to all state employees) or directly requires state implementation and enforcement of a federally-conceived program.

In relations with state governments, the national government may use the carrot, but not the stick. This is an important distinction, since its recognizes the differences between a voluntary action by the state, motivated by access to federal funding, and a mandatory requirement upon the states, without any such similar motivation.

North Carolina, like other states, must now simply weigh the desirability of federal health assistance funds against its distaste for a federally-conceived certificate of need program. If it opts for the latter, its regulatory program must meet federal standards. Congress has long recognized the potential impact of this approach, down to the very lowest level or most private transaction. The decision in this does not, therefore, signal a new shift in the federal/state relationship; rather it simply manifests the scope of potential federal power, should Congress choose to tie conditions to its purse strings.

With the US Supreme Court's brief order,[2] the lower court's ruling remains and the legal effort to overturn the federal health planning program as unconstitutional, as it relates to the questions raised, is ended.

Walter H. Mizell
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

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[1] *State of North Carolina et al, vs Califano et al*, 445 F. Supp. 532, (E.D.N.C. 1977).
[2] Cert. Denied—US—(1978).

MEDICINE IN LITERATURE

In the TMA Library

Alling CC III, Mahan PE (eds): *Facial Pain*, ed 2. Philadelphia, Lea & Febiger, 1977.

American Hospital Association: *A Portfolio of Architecture for Health*. Chicago, American Hospital Association, 1977.

Cherniack RM, Cherniack L, Naimark A, et al: *Respiration in Health and Disease*, ed 2. Philadelphia, Saunders, 1972.

DeJong RH: *Local Anesthetics*, ed 2. Springfield, Ill, Thomas, 1977.

Gabriel R: *Postgraduate Nephrology*. London, Boston, Butterworths, 1974.

English GM: *Otolaryngology: A Textbook*. Hagerstown, Md, Harper & Row, 1976.

Gluck L (ed): *Intrauterine Asphyxia and the Developing Fetal Brain*. Chicago, London, Year Book Medical Publishers Inc, 1977.

Henderson D, et al (eds): *Effects of Noise on Hearing*. New York, Raven Press, 1976.

*Jackson R: *The Cervical Syndrome*, ed 4. Springfield, Ill, Charles C Thomas, 1978.

Joel-Cohen S: *Abdominal and Vaginal Hysterectomy: New Techniques Based on Time and Motion Studies*. Philadelphia, Lippincott, 1972.

Mix CR, Quinn C: *Life and Death Issues: A Report of a Four-Year Exploration Into the Value of Human Life*. Austin, Tex, Hogg Foundation for Mental Health, University of Texas, 1977.

Penfield W: *No Man Alone: A Neurosurgeon's Life*. Boston, Little Brown, 1977.

Polk HC Jr, Stone HH (eds): *Hospital-Acquired Infections in Surgery*. Baltimore, London, Tokyo, University Park Press, 1977.

Redding JS: *Life Support: The Essentials: An Introduction to Sound Principles of Intensive Care in Cardiorespiratory Crises*. Philadelphia, Lippincott, 1977.

Rosett RN (ed): *The Role of Health Insurance in the Health Services Sector: A Conference of the Universities-National Bureau Committee for Economic Research*. New York, National Bureau of Economic Research, 1976.

Strub RL, Black FW: *The Mental Status Examination in Neurology*. Philadelphia, Davis, 1977.

Vigersky RA (ed): *Anorexia Nervosa: A Monograph of the National Institute of Child Health and Human Development*. New York, Raven Press, 1977.

**Member, Texas Medical Association*

In the Film Library

Biofeedback, slide presentation by Brockopp G, sponsored by Niagara Frontier District, New York State Chapter, American Physical Therapy Association. Buffalo, NY, Communications in Learning Inc, 1976.
Basic concepts, therapeutic applications of EEG. Therapeutic applications of EMG and temperature control.

Diagnosis and Management of Common Dermatologic Problems, slide presentation by American Academy of Dermatology. Evanston, Ill, The Academy, 1977.
Series of clinical presentations on diagnostic, management problems in common skin disorders: nevi, alopecia, lichen planus, vulvar dermatitis, dermatologic morphology, griseofulvin, pityriasis rosea.

Fetal Alcohol Syndrome, film by National Broadcasting Co. Wilmette, Ill, Films Inc, 1975.
Discusses and demonstrates physical, behavioral characteristics of children with fetal alcohol syndrome. Emphasis on life-long nature of children's deficiencies, need for physicians to inform prospective mothers of dangers of alcoholism in pregnancy.

History of Medicine, audiorecording by Erlen J. Dallas, University of Texas Health Science Center at Dallas, 1976.

Taped lectures of course in history of medicine. Primary emphasis on American medicine. Ancient medicine; 16th and 17th century European medicine; history of urology, anesthesiology, infectious diseases, vascular surgery, dermatology, philosophy of medicine also discussed.

Pathology of the Vulva, slide presentation by Budny NN, produced by Nuffield Department of Obstetrics and Gynaecology, The University of Oxford. Wallingford, Conn, PreTest Service, 1976.
Inflammatory lesions of the vulva, venereal infections, white lesions, vulval cysts, benign tumors, malignant tumors of the vulva.

Transfer Factor and Cancer Immunotherapy, slide presentation by American Academy of Dermatology. Evanston, Ill, The Academy, 1976.
Basic principles of transfer factor and clinical applications: TF therapy in fungal, mycobacterial and viral infections, autoimmune syndromes, congenital and acquired immunodeficiency, cancer.

Virology for the Practitioner, slide presentation by American Academy of Dermatology. Evanston, Ill, The Academy, 1977.
Current concepts of cutaneous virology with emphasis on varicella-zoster virus, viral exathems, wart virus, herpes simplex virus.

You Can't Buy Health, film produced by Burd & Cavan Communications Corporation. Chicago, Blue Shield Association, 1977.
Prevention (ie, exercise, physical fitness) as an alternative to costly health care. Warns Americans that health is influenced by lifestyle. Basic habits—eating, drinking, smoking, exercising—determine length, quality of life.

CURRENT NATIONAL MEETINGS

ADVANCES IN MEDICINE, Conference on growing points in medicine and their inter-relation, Wembley Conference Centre, London, July 23–28, 1978. Sponsored by Royal Society of Medicine. Theme is medical ages of man from infancy through middle life to old age. Subjects include genetics and fetal abnormalities, cancer, virus diseases, bioengineering, rheumatology. Contact: Conference Office, 43 Charles St, Mayfair, London W1X7PB.

AMERICAN ACADEMY OF FAMILY PHYSICIANS, NEW MEXICO CHAPTER, 21st Annual Ruidoso Family Practice Seminar, Inn of the Mountain Gods, Mescalero, NM, July 17–20, 1978. Sponsored by AAFP, New Mexico Chapter; scientific program by UT Medical School at San Antonio. AAFP Prescribed credit; Category 4, New Mexico Board of Medical Examiners. Contact: Bob Reid, Convention Dir, Box 456, Sunland Park, NM 88063, (915) 533-3449.

CALENDAR OF LISTINGS

■Denotes Texas Meetings

JULY

AMERICAN ACADEMY OF FAMILY PHYSICIANS, NEW MEXICO CHAPTER, Mescalero, NM, Jul 17–20, 1978. Box 456, Sunland Park, NM 88063.

AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE, Ann Arbor, Mich, Jul 10–15, 1978. Box 222, Morton Grove, Ill 60053.

INTERNATIONAL ACADEMY OF PHYSICIANS AND SURGEONS, Kyoto, Japan, Jul 2–7, 1978. Alfred Soffer, MD, Exec Dir, 911 Busse Highway, Park Ridge, Ill 60068.

ROYAL SOCIETY OF MEDICINE, London, Jul 23–28, 1978. Conference Office, 43 Charles St, Mayfair, London W1X 7PG, England.

AUGUST

ASPEN MUSHROOM CONFERENCE, Aspen, Colo, Aug 13–18, 1978. Beth Israel Hospital, 1601 Lowell Blvd, Denver 80204.

COLLEGE OF AMERICAN PATHOLOGISTS, Boston, Aug 18, 1978. 7400 N Skokie Blvd, Skokie, Ill 60076.

INTERNATIONAL SOCIETY FOR EXPERIMENTAL HEMATOLOGY, Chicago, Aug 27–31, 1978. Walter Fried, MD, Division of Hematology/Oncology, Michael Reese Hospital and Medical Center, 29th & Ellis Ave, Chicago 60616.

SEPTEMBER

AMERICAN ACADEMY OF FAMILY PHYSICIANS, San Francisco, Sep 25–28, 1978. Roger Tusken, 1740 W 92 St, Kansas City, Mo 64114.

AMERICAN ACADEMY OF OCCUPATIONAL MEDICINE, Williamsburg, Va, Sep 20–22, 1978. Howard N Schulz, 150 N Wacker Dr, Chicago 60606.

AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE, New York, Sep 24–29, 1978. 2317 W Jefferson St, Suite 208, Joliet, Ill 60435.

AMERICAN CANCER SOCIETY, INC, National Conference on Care of the Child With Cancer, Boston, Sep 11–13, 1978. 777 Third Ave, New York 10017.

■ AMERICAN COLLEGE OF EMERGENCY PHYSICIANS, Houston, Sep 19–21, 1978. AE Auer, Exec Dir, 3900 Capital City Blvd, Lansing, Mich 48906.

AMERICAN COUNCIL OF OTOLARYNGOLOGY, Las Vegas, Nev, Sep 10, 1978. Harry W. McCurdy, Exec Dir, 1100 17 St, NW, Suite 620, Washington, DC 20036.

AMERICAN ELECTROENCEPHALOGRAPHIC SOCIETY, San Francisco, Sep 7–9, 1978. Margaret H Henry, Exec Sec, 38238 Glenn Ave, Willoughby, OH 44094.

AMERICAN MEDICAL ASSOCIATION, 38th Annual Congress on Occupational Health, Tucson, Ariz, Sep 14–16, 1978. Barbara S Jansson, Department of Environmental, Public, and Occupational Health, 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL ASSOCIATION, Medical Staff Leadership Seminar, New Orleans, Sep 29–30, 1978. Department of Hospitals and Health Facilities, 535 N Dearborn St, Chicago 60610.

AMERICAN SOCIETY OF INTERNAL MEDICINE, Orlando, Fla, Sep 29–30, 1978. 535 Central Tower Bldg, 703 Market St, San Francisco 94103.

■ BLACKFORD MEMORIAL LECTURES, Denison, Tex, Sep 9, 1978. John D Gleckler, MD, 211 N Fannin, Denison, Tex 75020.

■ FLYING PHYSICIANS ASSOCIATION, INC, Houston, Sep 9–14, 1978. Al Carriere, Business Counsel, 801 Green Bay Rd, Lake Bluff, Ill 60044.

■ SOUTH PLAINS CHAPTER, TEXAS ACADEMY OF FAMILY PHYSICIANS, Lubbock, Sep 23, 1978. Norma Porres, MD, Sec, 4005 24th St, Lubbock, Tex 79410.

■ TEXAS MEDICAL ASSOCIATION, Fall Conference, Austin, Tex, Sep 22–24, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.

■ TEXAS PEDIATRIC SOCIETY, Amarillo, Tex, Sep 15–16, 1978. Laurance N Nickey, MD, District Chairman, 1515 N Oregon St, El Paso, Tex 79902.

WORLD FEDERATION OF NUCLEAR MEDICINE AND BIOLOGY, Washington, DC, Sep 17–21, 1978. 1629 K St, NW, Suite 700, Washington, DC 20006.

OCTOBER

AMERICAN COLLEGE OF GASTROENTEROLOGY, New Orleans, Oct 23–29, 1978. Daniel Weiss, 299 Broadway, New York 10007.

AMERICAN COLLEGE OF SURGEONS, San Francisco, Oct 16–20, 1978. C Rollins Hanlon, MD, 55 E Erie St, Chicago 60611.

AMERICAN DENTAL ASSOCIATION, Anaheim, Calif, Oct 22–26, 1978. C Gordan Watson, MD, 211 E Chicago, Chicago 60611.

■ PANHANDLE DISTRICT MEDICAL SOCIETY, Amarillo, Tex, Oct 21, 1978. Carlie Umphres, Box 3276, Amarillo, Tex 79604.

SOCIETY FOR CLINICAL AND EXPERIMENTAL HYPNOSIS, Asheville, NC, Oct 17–22, 1978. Mrs Marion Kenn, Admin Dir, 129A Kings Park Dr, Liverpool, NY 13088.

NOVEMBER

AMERICAN ASSOCIATION OF GYNECOLOGICAL LAPAROSCOPISTS, Hollywood, Fla, Nov 16–19, 1978. Jordan M Phillips, MD, 11239 S Lakewood, Downey, Calif 90241.

AMERICAN HUMANE ASSOCIATION, Miami, Nov 26–29, 1978. Kathern Bond, 5251 S Roslyn St, Englewood, Colo 80110.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Petersburg Beach, Fla, Nov 8–12, 1978. Lorraine Loesel, 1740 Broadway, New York 10019.

ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES, Washington, DC, Nov 26–30, 1978. RADM Walter Welham, MC, USN Ret, 10605 Concord, Suite 306, Kensington, Md 20795.

AMERICAN SOCIETY OF CYTOLOGY, Miami, Nov 7–11, 1978. WR Lang, MD, Sec, Health Sciences Center, 130 S Ninth St, Suite 1006, Philadelphia 19107.

MEDICAL SOCIETY OF THE US & MEXICO, Guadalajara, Jalisco, Mexico, Nov 15–18, 1978. Carolyn Parsons, 3161 N Pantano Rd, Tucson, Ariz 85715.

■ NATIONAL JOINT PRACTICE COMMISSION, Dallas, Nov 9–11, 1978. WB Schaffrath, PhD, Dir, 35 E Wacker Dr, Suite 1990, Chicago 60601.

SOUTHERN MEDICAL ASSOCIATION, Georgia World Congress Center, Nov 11–14, 1978. 2601 Highland Ave, Birmingham, Ala 35205.

■ TEXAS MEDICAL ASSOCIATION, House of Delegates, Austin, Tex, Nov 11–12, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin 78701.

DECEMBER

AMERICAN ACADEMY OF DERMATOLOGY, San Francisco, Dec 2–7, 1978. Bradford W Claxton, 820 Davis St, Evanston, Ill 60201.

■ SOUTHWESTERN GYNECOLOGIC ASSEMBLY, Dallas, Dec 7–9, 1978. 3630 Noble Ave, Dallas 75204.

CONTINUING EDUCATION COURSES

JULY

Family Medicine

Title: Family Practice Review Course

Sponsors: Baylor College of Medicine, Houston

Location of course: Marriott Motor Hotel, 2100 S Braeswood, Houston 77030

Date: July 12–15, 1978

Duration: Continuous; 4 days; 8 hours instruction per day; Wednesday-Saturday

Fee: $275

Designed for: General practitioners, Specialists in Family Medicine

Enrollment: Minimum, 50; Maximum, 200

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 34 hours

Teaching methods: audiovisual materials, lecture, open question, panel

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Title: Family Practice Recertification Review

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio

Date: July 28–30, 1978

Duration: Continuous; 3 days; 6 hours instruction per day; Friday-Sunday; 16 total course hours

Fee: To be announced

Designed for: General practitioners

Enrollment: Maximum, 200

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours

Teaching methods: Audiovisual materials, lecture, open question, seminar, television

Contact: Barbara Woods, Coordinator, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Pediatrics

Title: Controversies in Pediatrics

Sponsor: Symposia de Santa Fe

Location of course: Santa Fe Hilton Inn, Santa Fe, New Mexico

Date: July 20–22, 1978

Contact: W. J. Levy, MD, Secretary-Treasurer, Box 5175, Santa Fe, NM 87502

Title: 21st Annual Postgraduate Course in Pediatrics

Sponsors: Department of Pediatrics, University of Colorado School of Medicine

Location of course: Wildwood Inn, Snowmass, Colo

Date: July 31–Aug 3, 1978

Duration: Continuous; 4 days

Fee: $160

Designed for: Specialists in Pediatrics, Family Practice

Credit: AAFP, 22 prescribed hours; Category 1, AMA Physician's Recognition Award; 22 hours

Contact: Department of Pediatrics, University of Colorado School of Medicine, 4200 East Ninth Avenue, Denver 80262

Radiology & Radioisotopes

Title: External Beam, Interstitial, and Intracavitary Dosimetry—Principles

Sponsors: Division of Continuing Education, UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute

Location of course: UT Health Science Center at Houston, 1100 Holcombe, Houston

Date: Jan 3–14, 1978; Repeated July 3–14, 1978

Duration: Continuous; 10 days; 2 weeks; 8 hours instruction per day; Monday-Friday; 80 total course hours

Fee: $350

Designed for: Specialists in Radiotherapy; Physicists

Teaching methods: Enrollee performs procedure, laboratory work, lecture

Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Title: External Beam, Interstitial, and Intracavitary Dosimetry—Manual and Computer Methods of Calculation

Sponsors: Division of Continuing Education, UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute

Location of course: UT Health Science Center at Houston, 1100 Holcombe, Houston

Date: Jan 16–27, 1978; Repeated July 17–28, 1978

Duration: Continuous; 10 days; 2 weeks; 8 hours instruction per day; Monday-Friday; 80 total course hours

Fee: $350

Designed for: Specialists in Radiotherapy; Physicists

Teaching Methods: Enrollee performs procedure, laboratory work, lecture

Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

AUGUST

Malignant Disease

Title: Third Annual Urologic Oncology Seminar

Sponsor: The University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute

Location of course: Shamrock Hilton Hotel, Houston

Date: Aug 3–4, 1978

Fee: $75

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Douglas E. Johnson, MD, Head, Department of Urology, M.D. Anderson Hospital, 6723 Bertner, Houston 77030

SEPTEMBER

Anesthesiology

Title: Annual Meeting, Texas Society of Anesthesiologists

Sponsors: Texas Society of Anesthesiologists, Austin

Location of course: Galveston

Date: Sept 16, 1978

Duration: 1 day; Saturday; 8 am–5 pm; 7 total course hours

Fee: Fee for nonmembers to be announced

Designed for: Specialists in Anesthesiology

Credit: Category 1, AMA Physician's Recognition Award; 6¼ hours

Teaching methods: Audiovisual materials, lecture, open question, panel

Contact: John A. Jenicek, MD, UT Medical Branch, 800 Mechanic St, Galveston 77550

Cardiovascular Disease

Title: Current Topics in Coronary Artery Disease—1978

Sponsors: Baylor College of Medicine, Department of Medicine

Location of course: Auditorium, Jesse H. Jones Library Bldg, Texas Medical Center

Date: Sept 7–9, 1978

Duration: 2½ days

Fee: $175

Designed for: Internists; Cardiologists; General practitioners; Specialists in Family Medicine

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Forensic Medicine

Title: Legal Process in Mental Health and Family Law

Sponsors: UT Health Science Center at San Antonio; Wilford Hall USAF Medical Center; Criminal Law Association, St Mary's School of Law

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio; St Mary's University Law School

Date: September 29, 1978

Duration: Continuous; 1 day; 1–4 pm; 7–10 pm (at St Mary's)

Fee: $20

Enrollment: Maximum, 175

Credit: Category 1, AMA Physician's Recognition Award; 5 hours

Teaching methods: Audiovisual materials, lecture, open question

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Internal Medicine

Title: Cancer: A Multidisciplinary Approach

Sponsors: Continuing Medical Education Department of Short Courses, Department of Internal Medicine-Division of Oncology, UT Medical Branch, Galveston; UT Medical Branch Cancer Center

Location of course: Galvez Hotel/Motel, 21st & Seawall, Galveston

Date: September 13–16, 1978

Duration: Continuous; 2½ days; 8 hours instruction per day; 8 am–5 pm; 20 total course hours

Fee: $140

Designed for: General practitioners; Specialists in Surgery, Radiology, Internal Medicine

Enrollment: Minimum, 60; Maximum, 120

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 20 hours

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Contact: Nekee Susan McNulty, Coordinator Continuing Medical Education Department of Short Courses, UT Medical Branch, 2nd Floor, Gail Borden Building, Galveston 77550

Obstetrics & Gynecology

Title: Great Debates

Sponsors: Department of Obstetrics & Gynecology, Baylor College of Medicine, Houston

Location of course: Auditorium, Jesse Jones Library Building, Texas Medical Center, Houston

Date: Sept 21–23, 1978

Duration: Continuous; 2½ days; 6 hours instruction per day; 15 total course hours

Fee: $150

Designed for: Specialists in Obstetrics & Gynecology

Enrollment: Maximum, 500

Credit: Category 1, AMA Physician's Recognition Award; 15 hours

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Pediatrics

Title: Burns in Children

Sponsors: American Burn Association, Shriners Burns Institute of Galveston, The University of Texas Medical Branch Division of Continuing Education

Location of course: Flagship Hotel and Shriners Burns Institute; Galveston

Date: Sept 7-9, 1978

Fee: Physicians, $175; Others, $100

Designed for: Physicians, nurses, occupational therapists, respiratory therapists, physical therapists, dietitians and other members of the burn team

Contact: Dr Hugo F. Carvajal, Shriners Burns Institute, 610 Texas Ave, Galveston 77550, (713) 765-2306

Psychiatry

Title: Canadian Culture and the Healing Arts—Film Festival '78

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio Auditorium, 7703 Floyd Curl Dr, San Antonio

Date: Sept 15-17, 1978

Duration: Continuous; 3 days; Friday—Sunday

Designed for: General practitioners; Specialists in Psychiatry

Credit: Category 1, AMA Physician's Recognition Award; 16 hours

Teaching methods: Audiovisual materials, lecture

Contact: Sharon Ray, Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

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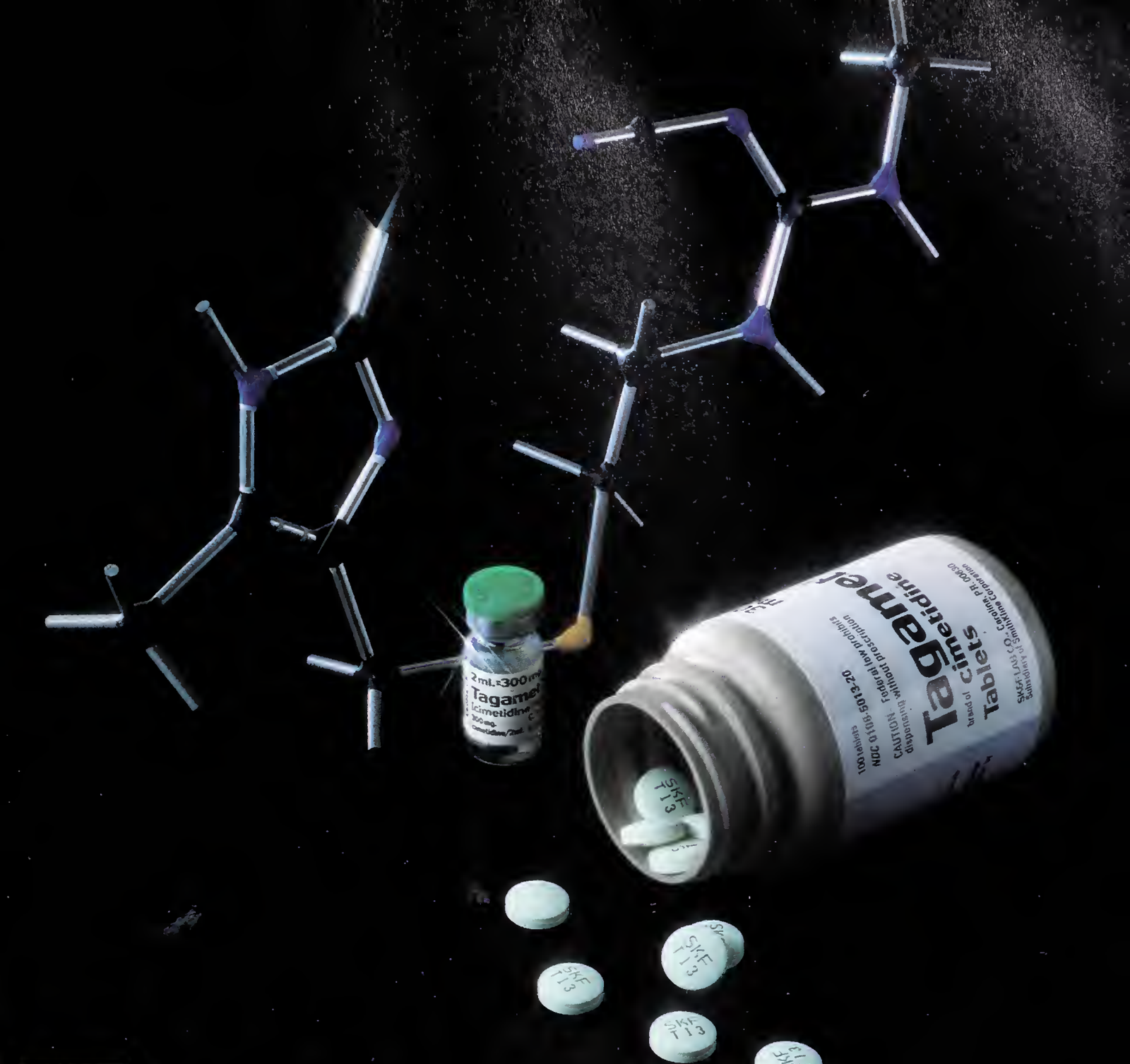

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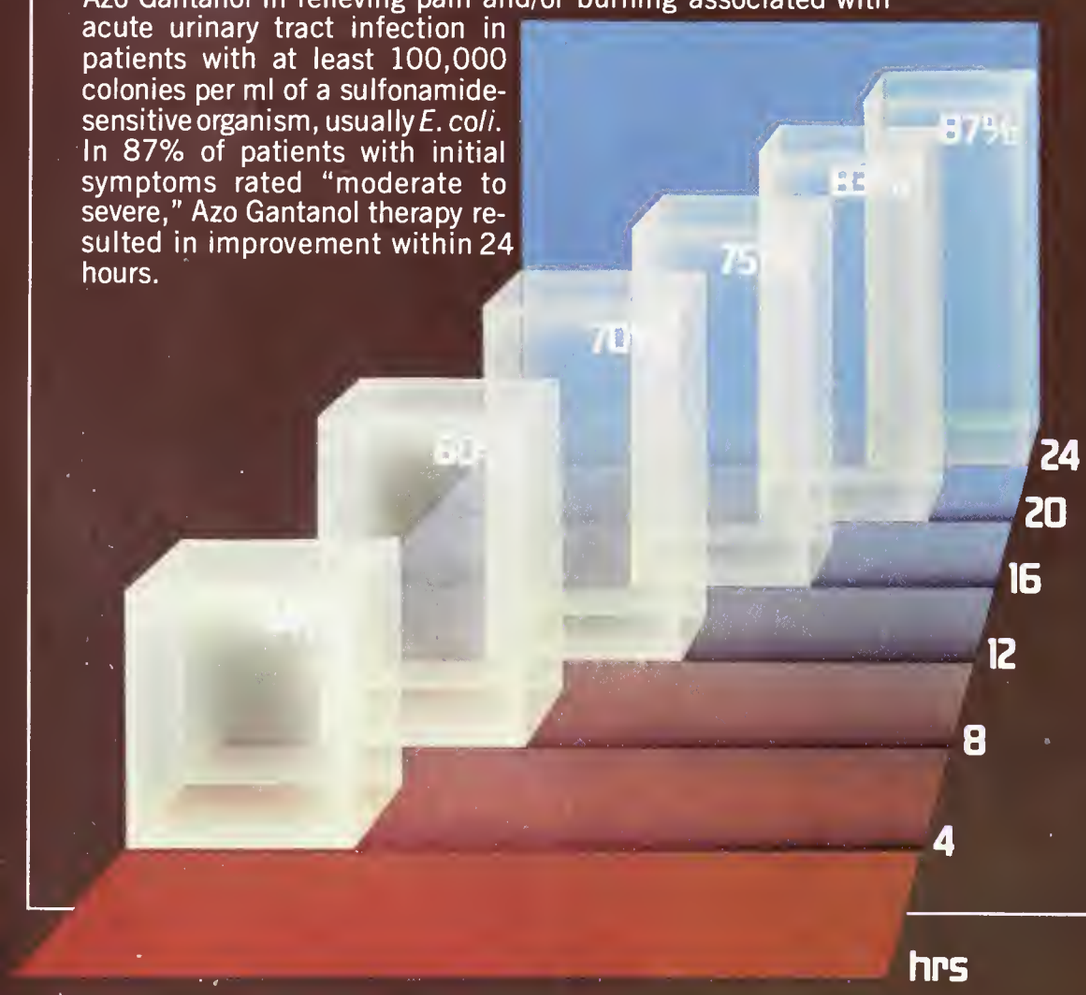

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Precautions: Potassium intoxication by oral administration rarely occurs in patients with normal kidney function, however, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentrations of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a low-salt diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation.

Adverse Reactions: Nausea, vomiting, diarrhea, and abdominal discomfort have been reported. The most severe adverse effect is hyperkalemia.

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Beta blocking drugs and the treatment of hypertension

Jeremy J. Hammond, MD, BS; Walter M. Kirkendall, MD

Beta adrenoreceptor blocking agents, especially propranolol, have been widely used because they have antianginal and antiarrhythmic properties. Their ability to lower blood pressure prompted the Food and Drug Administration in 1976 to approve the use of propranolol (Inderal) for treatment of hypertension. This article describes the properties of beta blocking agents with reference to hypertension, but does not review all aspects of beta blockade.

Clinical Pharmacology

The classification of adrenoreceptors into alpha and beta subgroups[1] based upon the types of responses in various organs to sympathomimetic amines (Fig 1) is a basis for research in this area. The discovery that propranolol[2] could inhibit the responses produced by the stimulation of beta-adrenergic receptors has been followed by extensive investigation. It is useful to review the properties of these agents as this is the basis for their clinical use.

Beta-Adrenergic Receptor Blockade

Beta blocking agents are all competitive inhibitors of beta agonists such as isoproterenol.[3] Because of this competitive inhibition, the effect of any beta blocking agent may be overcome by increasing the concentration of an agonist, so that the degree of beta blockade at any time is relative to the agonist concentration.[4] The agonistic properties of isoproterenol, being increase in heart rate and cardiac contractility, and dilation of peripheral blood vessels, have been used to assess the relative potencies of the various beta blocking agents in animals (Fig 2).

The use of isoproterenol to assess the comparative degree of beta blockade is not physiological.[5] Tests to assess endogenous sympathetic stimulation include submaximal exercise and reflex tachycardias produced by either standing, tilt, or the administration of glyceryl trinitrate. The most reliable of these probably is submaximal exercise,[5] but the test requires obtaining a pulse rate of approximately 160 beats per minutes in the control state to ensure vagal withdrawal and adequate sympathetic stimulation.[6] Using such testing propranolol's reduction of exercise tachycardia in healthy men has been shown to be dose related.[7]

Membrane Stabilizing Activity

This term has been used to describe both a local anesthetic action and a quinidine-like action of beta blocking agents. Propranolol has this property, but it is not thought to be important in the doses used in clinical practice.[8]

Intrinsic Sympathomimetic Activity

This property, otherwise known as partial agonistic activity, has been described in certain beta blockers including oxprenolol, alprenolol, and pindolol, but not propranolol. Intrinsic sympathomimetic activity was originally described in animal experiments[2] and is difficult to quantify and demonstrate in man.

The influence of this property has been studied by using exercise testing.[9] Propranolol and other drugs without intrinsic sympathomimetic activity reduce exercise tachycardia in proportion to the dose used. Increasing doses of propranolol and sotalol have progressively increasing effects on reducing exercise tachycardia, to the limits of the doses tested.[9] Agents with intrinsic sympathomimetic activity (oxprenolol and practolol) lower the pulse in relation to dose until a plateau is reached, following which larger doses will show almost no increase in their effect.

This activity does not seem to influence the beneficial effects of these drugs,[5] but may reduce the incidence of two of the adverse effects, bronchospasm and cardiac failure.[10]

Cardioselectivity

The concept of cardioselectivity originated in 1967, when Lands and associates[11] suggested that beta-adrenergic receptors could be subdivided into beta 1 receptors, which mediate cardiac responses, and beta 2 receptors, which mediate dilation of the bronchi and blood vessels. Assessment of cardioselectivity in man is difficult and must be based upon the demonstration that the drug blocks the effects of an agonist, for example, isoproterenol, on the heart, while having minimal effects on the bronchodilator and vasodilator effects of the agonist. Measurement of the effects of beta blocking drugs on resting respiratory function is not sufficient to assess cardioselectivity fully, and measurement of respiratory function during exercise is the preferred technique.[5]

The concept of cardioselectivity has been approached experimentally by examining the effects of beta agonists and beta blockers.[12] Isoproterenol and propranolol act equally on all beta receptors. Practolol and atenolol show

two different patterns; the cardiac receptors are blocked by small doses and the bronchial smooth muscle receptors are blocked by large doses. These drugs are not cardiospecific, but only relatively cardioselective. Under clinical conditions the doses used may be such that cardioselectivity may not be apparent.[12] Practolol is unlikely to be marketed in the United States because it causes an oculocutaneous syndrome. No other beta blocker has been associated with this effect.

Hemodynamic Effects

Propranolol reduces the resting pulse rate.[4] Exercise tachycardia is inhibited by propranolol in a dose dependent fashion, but drugs with intrinsic sympathomimetic activity have a plateau effect above which further increases in dose do not increase this effect.[13]

The cardiac output falls with beta blockade. This is partly related to the relative bradycardia,[4] but other factors, such as alteration of myocardial contractility, play a definite role.[14] The lowering of blood pressure associated with chronic beta blockade has been confirmed in many studies.[15]

1. Distribution of adrenergic receptors.

Organ	Receptor	Response
Bronchi	Beta	Dilatation
Heart	Beta	Increase in heart rate
	Beta	Increase in cardiac contractility
	Beta	Accelerate A-V conduction
Blood Vessels	Beta	Dilatation
	Alpha	Constriction
Gastrointestinal tract	Alpha & Beta	Reduction in motility

*2. Comparative beta blocking activity based on inhibition of isoproterenol tachycardia in animals.**

Propranolol	1.0
Oxprenolol	1.0
Alprenolol	1.0
Pindolol	4.0
Sotalol	0.3
Acebutolol	0.3
Metoprolol	0.3
Practolol	0.3

*Adapted from the combined data of Barrett, 1973,[3] and McDevitt and associates, 1976.[5]

3. Classification of beta blockers according to cardioselectivity and intrinsic sympathomimetic activity.

Cardioselective		Noncardioselective	
With Intrinsic Sympathomimetic Activity	Without Intrinsic Sympathomimetic Activity	With Intrinsic Sympathomimetic Activity	Without Intrinsic Sympathomimetic Activity
Practolol	Metoprolol	Oxprenolol	Propranolol
	Atenolol	Alprenolol	Timolol
	Tolamolol	P(r)indolol	Sotalol

Antihypertensive Action

Following commencement of an adequate dosage of propranolol, the blood pressure begins to fall within 48 to 72 hours,[16] and will continue to fall for two or three weeks.[17] When used to treat hypertension, all beta blockers have to be used in higher doses than those required to block peripheral beta receptors.[18] The daily propranolol dose required for the treatment of hypertension is usually 160–480 mg, although a starting dose of 80 mg daily is recommended by the manufacturers. Sometimes more than the usual dosage is required and doses of up to 4 gm per day have been used.[19] Individual dosage will vary considerably from patient to patient.

The pharmacokinetics of propranolol in humans are such that a twenty-fold variation exists in the clearance rate. The relationship between oral dosage and plasma concentration is extremely variable.[12] When used orally, the drug must be titrated carefully against the response of the individual patient to achieve optimum results.

Advantages

Beta blockers are well tolerated by most individuals and are generally acceptable to a higher percentage of patients than other agents.[18] It has been shown that they are effective when taken twice daily[20,21] and recent work suggests that a once daily dosage may be as effective.[22,23] Once-a-day regimens have been reported to be successful with propranolol, as well as pindolol and atenolol.[22,23] Current usage, however, dictates that the daily dose should be divided into four, three, or two equal parts. We currently favor a twice daily regimen to encourage maximum patient compliance.

Compared to vasodilators, such as hydralazine (Apresoline), beta blockers cause fewer headaches or palpitations. They do not give rise to postural hypotension as do postganglionic blockers. Disturbances of male potency have been reported occasionally with propranolol, but are rare. The fall in blood pressure is similar in all postures and physical exertion does not cause any substantial further fall in pressure.[18]

In comparison to methyldopa (Aldomet) and clonidine (Catapres), the beta blockers are free of serious sedative effects. These qualities make beta blockers more readily acceptable to the young, asymptomatic hypertensive who has difficulty accepting treatment with other drugs that may alter his lifestyle.

Another possible advantage of beta blockers is that they may diminish the coronary complication of hypertension. Effective treatment of hypertension by conventional agents reduces the incidence of congestive heart failure and cerebral and renal complications, but the incidence of myocardial infarction did not fall significantly in the veterans' study.[24]

The addition of beta blockade to antihypertensive regimens may reduce the incidence of myocardial infarction.[25,26] If this effect of beta blockers is proven, it will be a powerful additional reason for their early use. Since control of blood pressure may not cause regression of atherosclerosis,[27] it is likely that this apparent effect of treatment was due, at least in part, to an improvement in cardiac dynamics and performance, and thus in relative improvement of the coronary circulation.[18]

Contraindications

The main contraindications to the use of propranolol are asthma or chronic obstructive lung disease, bradycardia, and cardiac failure. In diabetes, caution must be exercised, as propranolol may suppress insulin release.[28] The symptoms of hypoglycemia may be masked by beta blockade,[29] and other undesirable metabolic effects such as suppression of glycolysis[4] or glycogenolysis[29] may occur. Hypertension may occur if beta blockade is used alone in pheochromocytoma, as this leaves the alpha stimulation of the catecholamine excess unopposed by beta receptors.[29] For the same reason, use with monoamine oxidase inhibitors is also contraindicated.

Side Effects

In susceptible patients, propranolol may induce asthma, bradycardia, and cardiac failure. These problems may preclude the use of propranolol. Cardiac problems are relatively infrequent, and if cardiac failure is to occur it will usually be manifest after the first few doses of the drug. Other side effects are relatively infrequent, the most common being central nervous system disturbances including nightmares, sleep disturbances, dizziness, and hallucinations.[29] Depression has also been reported with propranolol. Tiredness, gastrointestinal upsets, and worsening of peripheral circulation with cold extremities or Raynaud's phenomenon also may occur.[15] The majority of patients who take beta blockers will have no serious side effects.[18]

Indications

Propranolol is currently classed as a step two drug, to be added to a diuretic, by the Joint National Committee on Detection, Evaluation and Treatment of High Blood Pressure.[30] In this category, the drug is recommended as an alternative to reserpine, methyldopa, and clonidine. The relative potency of various antihypertensive regimens has been studied by the Veterans Administration Study Group.[31] A series of 450 men with diastolic blood pressures in the range of 90 to 114 mm Hg were studied. The percentage of patients to achieve a diastolic blood pressure of less than 90 mm Hg and at least 5 mm Hg drop were analyzed for various treatment regimens. This was achieved in 52% of patients taking propranolol alone, 72% taking propranolol and hydralazine, 81% taking propranolol and hydrochlorothiazide, 88% taking reserpine and hydrochlorothiazide, and 92% taking propranolol, hydrochlorothiazide, and hydralazine.[31] The diuretic produced hypokalemia and hyperuricemia, and reserpine produced nasal stuffiness, but in general, side effects were not prominent. Other authors have reported that in long-term treatment, almost 80% of patients reacted favorably to the use of propranolol.[32]

In Europe, propranolol and other beta blockers have been recommended as first choice treatment for previously untreated hypertensive patients.[26] It also has been suggested in the United States that all patients, except the elderly and those with definite contraindications, should be treated first with propranolol.[33] This would be expected to normalize blood pressure in a significant number of patients. For nonresponders, a diuretic would then be added, with subsequent additions or subtractions as necessary. The suggested advantages of this regimen are: (1) control of blood pressure with fewer side effects, (2) control of blood pressure with fewer drugs, and (3) a desirable action on the renin-angiotensin system. This proposal requires critical evaluation and further testing.

The choice of propranolol as a first drug is particularly appropriate in a number of situations. These include angina, which can be significantly improved by beta blockade. Thus, in the patient with hypertension and angina, propranolol is a good choice.[29] The drug should be withdrawn slowly, should the need arise, because of the reports of an increase in myocardial ischemic events with rapid withdrawal.[34]

Propranolol is useful in treating cardiac arrhythmias of both the supraventricular and ventricular types, unless the ventricular arrhythmias are induced as a response to a bradycardia. Arrhythmias induced by hydralazine are treated effectively with propranolol.[29]

Patients taking tricyclic antidepressants may be treated safely with propranolol. The tachycardia seen with the tricyclics is counteracted by propranolol,[15] and in cases of tricyclic overdose with associated arrhythmias, beta blockade is an effective treatment.[35] The potentially undesirable central nervous system effects should be remembered when dealing with psychiatric patients.

In patients with hyperuricemia or thiazide allergy, propranolol is a logical alternative to the thiazide diuretics.

Two further major arguments for the selection of propranolol as a first choice of treatment are: (1) the measurements of plasma renin activity, and (2) the hemodynamic characteristics of the individual patient. Neither of these arguments is universally accepted, but they are presented for completeness.

1. Plasma Renin Activity: The use of plasma renin activity measurements to predict which patients will respond to beta blockade is unlikely to become established as routine. The problems include high cost per patient, the difficulty of reproducing an accurate essay, and the fact that an isolated plasma renin sample may not represent the true renin status of the patient.[36]

It has been argued that plasma renin activity should be measured in previously untreated patients, and that those with normal or high values should be treated with propranolol. This argument is based upon a number of suppositions: (1) that the blood pressure level in all hypertensive patients with normal or high renin activity is largely mediated by the plasma renin activity; (2) that propranolol acts to lower blood pressure by suppressing renin activity; and (3) that an elevated plasma renin level is harmful. These assumptions have been the subject of much debate and none has been accepted as proven.

2. Hemodynamic Characteristics: It has been suggested that a hemodynamic classification may be used to subdivide patients and it may be useful to base treatment on this scheme.[37]

In early hypertensive disease, although the blood pressure is elevated, there are no signs of end organ damage. The majority of these patients will have a hyperkinetic circulation with elevated heart rate and minute volume at rest, and relatively normal vascular resistance. The logical treatment here would be reduction of the heart rate and minute volume by beta blockade.[37] The studies of Lydtin and associates[38] and Tarazi and Dustan[39] support this concept in that they found propranolol was more effective in patients with increased cardiac output. However, the response of blood pressure to treatment was not always predictable by these measurements.

An attractive extension of the treatment of early hypertension by beta blockade is the use of propranolol in the labile or borderline hypertensive. These patients often exhibit signs of sympatho-adrenal excess with anxiety, tremor, tachycardia, and hyperdynamic circulation. The term "noradrenaline addicts" has been used to describe these individuals,[40] and it has been proposed that they may benefit from beta blockade.[41]

Established arterial hypertension is characterized by cardiac hypertrophy and increased vascular resistance, but is usually associated with normal cardiac output at rest. Beta blockers are effective in reducing cardiac work,[37] and in the long term, they may reduce peripheral vascular resistance.[39] Peripheral vasodilators attack the increased vascular resistance, but agents such as hydralazine lead to an increase in heart rate and cardiac output, which may be uncomfortable to the patient. The use of propranolol will counteract such effects without interfering with the antihypertensive action of the vasodilator, and so the combination of propranolol and a vasodilator is synergistic. The addition of a diuretic will reduce excess body salt and water and so have an additive effect.[37]

In advanced hypertension there is more severe end organ damage; the circulation may be hypokinetic with a decreased minute volume at rest, together with elevated vascular resistance. Here diuretics may be considered drugs of first choice because they decrease blood volume and so reduce blood pressure and cardiac work. The addition of propranolol or a vasodilator, or both, will have additive effects and complement this action.[37]

Unfortunately, this seemingly logical approach to the use of beta blockade has not been confirmed by a number of studies,[42,43] and as yet no clear hemodynamic criteria exist for the use of beta blockade. At present, in the United States, propranolol is accepted as a step two antihypertensive; however, in certain situations it is indicated as drug of first choice.

Mechanism of Action

The possible mechanisms of the antihypertensive action of propranolol have been the subject of much research but no definite answer is available. A number of possibilities exist, and we shall consider each in turn.

1. The Renin Theory: Following the observation that renin release was mediated by beta-adrenergic receptors, it was found that propranolol could suppress basal renin release. In 1972, Buhler and associates proposed that the antihypertensive effect of propranolol resulted from its action in suppressing renin release.[44] This attractive hypothesis does not appear to be the complete answer, as Morgan and coworkers were able to dissociate the changes in plasma renin activity and the antihypertensive effect in a study of both propranolol and pindolol.[45] More recently, Hollifield and associates have demonstrated that in low dose, the antihypertensive action of propranolol appears to be renin dependent, while at doses greater than 320 mg/day, the antihypertensive action is independent of changes in plasma renin activity.[46] This theory goes a long way toward explaining the discrepancy of the previous results; however, it is noteworthy that in the high renin group in Hollifield's study, although plasma renin was returned to normal, blood pressure was not.

2. Central Nervous System Theory: The effects of propranolol on the central nervous system have been the subject of considerable investigation. Animal experiments have shown that propranolol administered directly into the brain will cause a fall in blood pressure.[47] Experiments in rabbits also have shown that at least part of the hypotensive effect of propranolol is mediated by an effect of the central nervous system.[48] The most likely explanation of this action appears to be a diminution of sympathetic nervous activity, via adrenergic antagonism in the posterior hypothalamus.[16] It has also been suggested that a damping of autonomic input by the blunting of peripheral responses may play a role,[16] but more experimental data is needed in this area.

3. The Cardiac Theory: The decrease in cardiac output produced by propranolol contributes to its hypotensive action. It is not clear whether the fall in cardiac output is primarily responsible for other changes in the peripheral circulation, resulting in the final blood pressure lowering effect, or whether these changes are independent of the cardiac effect. The common feature of cardiac beta blockade links all antihypertensive beta blockers and this has led to wide belief in this mechanism of action, although experimental proof is lacking.[16] It has been suggested that the fall in cardiac output leads to autoregulation and peripheral vasodilation as a response to the fall in perfusion. Even more speculative is the suggestion that adrenoreceptor blockade results in a reduction of cardiac contractility and this results in a number of subtle changes in the circulation which reverse the tendency to blood pressure elevation.[16]

4. Baroreceptor Theory: Pritchard and Gillam[19] suggested that if propranolol increased baroreceptor sensitivity, this would explain the hypotensive effect of the drug. The preservation of baroreceptor function also would explain the lack of postural hypotension. This theory has not been investigated widely because the experimental design would be difficult.

5. The Metabolite Theory: It is known that the metabolite of propranolol, 4-hydroxy-propranolol, is metabolically active. However, this compound has a shorter half-life than the parent compound,[16] and it is unlikely that this or any other hitherto unknown metabolite will explain the antihypertensive action fully.

It seems likely that a combination of two or more of the hypotheses is the explanation for the antihypertensive action of propranolol, but the situation is unclear and research remains active.

Other Uses

Apart from treatment of hypertension, angina, and arrhythmias, which are established uses of propranolol, beta blockade has been advocated for hyperthyroidism; obstruction to ventricular outflow (such as subaortic stenosis or tetralogy of Fallot); in psychiatric states such as anxiety, drug or alcohol withdrawal, psychosis, or emotional stress; in the prophylaxis of migraine;[17] and in the treatment of essential tremor.

Following recent European studies which suggested that long-term beta blockade would reduce the mortality following acute myocardial infarction,[49-51] the NIH set up a multicenter study involving 4,200 patients to investigate propranolol in the secondary prevention of coronary disease.

Another study examined the effect of beta-adrenergic blockade on patients with myocardial infarction.[52] Patients who took beta-adrenergic blocking drugs had a significantly lower incidence of transmural infarction, severe arrhythmias, and incidence of delayed heart failure. Other complications, such as sinus bradycardia, hypotension, syncope, and radiological evidence of pulmonary edema, showed a similar incidence.

Conclusion

Although much debate centers on which drug should be used first, a diuretic or a beta blocker, we feel that the more important issue for the practicing physician is to be familiar with the use of propranolol, and know that it is an effective agent which can be used alone, or in combination with other drugs. The combination of beta blockers, diuretics, and vasodilators has much theoretical and practical appeal and may become established as the preferred treatment of the more severe grades of hypertension.

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Pediatric practice: patterns of change

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This report concerns a study to determine the future of pediatrics; more specifically, how residency training programs can help prepare tomorrow's pediatricians. Changes in medical capabilities and traditions, as well as changes in patients' needs, attitudes, and desires, affect pediatric practice. To perceive the future, it is necessary to examine the past and present.[1-24]

Significant changes have occurred in the practice of pediatrics. During the past 25 years, rapid advances in medical science have been associated with dramatic reduction in morbidity and mortality from infectious and other organic childhood diseases, and with increasing subspecialization. Participation of practicing pediatricians in medical education has decreased with development of full-time academic faculties. Genetic counseling, care of handicapped children, and attention to psychosocial, learning, and behavior problems are receiving more emphasis.

In other aspects of pediatric practice, there have been few changes. Child health supervision is and should continue to be the primary goal of pediatrics. Although there have been methodological changes, frequent visits persist. This routine was formalized in the late 19th century with distribution of clean milk at weighing stations and was reinforced by the introduction of vaccines on a large scale beginning with diptheria toxin-antitoxin and continuing through pertussis and tetanus to polio and measles. Emphasis upon screening and delegation of routine health supervision to formally trained nonphysician health personnel (eg, the pediatric nurse practitioner) began in the 1960s. More recently, both of those methods and the need for frequent visits of ostensibly well children to receive health supervision have been questioned.[10,21]

Methods

Information was obtained by telephone interview of pediatricians who had completed an approved residency program in Texas in 1960, 1965, and 1970, and who were residing in the continental United States. The Department of Preventive Medicine and Community Health, The University of Texas Medical Branch, helped develop the interview instrument. The director of each of the four university-based training programs existing in Texas between 1960 and 1970 wrote to the graduates of his program explaining the study and requesting participation. The mailing included a self-addressed return postcard on which the respondent indicated the preferred day and time for the interview and a reference questionnaire to orient the respondent to the subject matter and to serve as a prompter during the telephone interview.

Respondents were interviewed by a pediatric nurse practitioner during May, June, and July 1976. Each interview lasted from 7 to 15 minutes. Each completed interview instrument was edited to verify that responses had been recorded in the appropriate precoded field. The University of Texas Medical Branch Biometry Laboratory then helped transfer to key punch cards and analyze the data.

Results

Of the 50 pediatricians eligible for this study, 30 (60%) agreed to be and were interviewed. Of these 30, seven completed their residency in 1960, ten in 1965, and 13 in 1970. Twenty-seven respondents were males and three (10%) were females. Seventeen (57%) were residing in Texas at the time of interview.

Practice Characteristics

Of the 30 respondents, eight (27%) were in solo practice, 14 (47%) were in group practice, five (17%) were in institutional settings, and three (10%) were full-time university faculty. Five (23%) of the 22 practicing pediatricians were members of the clinical faculty at teaching hospitals. Of the 14 respondents in group practice, four were in mixed specialty groups varying in size from six to 24 physicians (mean 16.8, median 18.5) and ten were in pediatric groups varying in size from three to eight pediatricians (mean 4.6, median 4.5). Compared to 1960 and 1965 (Fig 1), more 1970 graduates were working in rural communities outside Texas (not statistically significant).

The 22 practicing pediatricians devoted a median of 46.8 hours per week to direct patient care (37 during office hours); a median of 10.5 telephone hours per week to patient care (equally divided between office hours and nights/weekends); and a median of 6 hours per week to administrative tasks (eg, business operation, filling out insurance forms). These 22 respondents provided care for a median of 30 ambulatory and four hospitalized patients per day. Little difference is apparent when solo

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and group practitioners are compared (Fig 2).

Subspecialty Emphasis

A subspecialty emphasis was indicated by 20 (67%) of the 30 respondents, but only six (20%) of them limited their practices to the subspecialty (Fig 3). These six were, with one exception, in institutional or academic settings ($P<0.010$).

Of the 12 respondents in private practice who did not limit their practice to a subspecialty, four had formal training and eight had obtained their subspecialty skills through a combination of residency, continuing education, and experience in practice. Two of the four with fellowship training were board certified or qualified (both in hematology); none of the other eight were certified, and the majority indicated their area of emphasis was neonatology or learning disorders. Two respondents, currently in institutional administrative roles, previously limited their practice to a subspecialty (one had fellowship training and was certified). Of the other five respondents in institutional/academic settings who limit their practice, three had fellowship training and two were board certified or qualified. Thus, a total of six respondents (20%) either had or were qualified for subspecialty certification; three were in private practice and three in academic/institutional settings (four in hematology and one each in cardiology and neurology).

1. Demographic characteristics of all 30 respondents by year of completion of residency training

	1960	1965	1970	Total
Type of Practice				
Solo	2	2	4	8
Group	2	7	5	14
Institutions/Academies	3	1	4	8
Place of Practice				
Texas	5	7	5	17
Elsewhere	2	3	8	13
Size of Community				
Rural	0	1	4	5
Urban	7	9	9	25

Support Personnel

The eight solo practitioners had a median of three support personnel working in their offices; all but one had an RN/LVN; all but one had one or more clerical personnel (nurse assumed these duties); and three had technical support personnel. Two of the eight solo practitioners had no arrangements for sharing night call, laboratory or office facilities, while six had some arrangement with another physician(s). Only two of the solo practitioners shared support personnel with another physician; one shared both nursing and clerical personnel, while the second shared technical and clerical personnel. The 14 group practitioners had a median of 8.5 support personnel in their practice setting (1.3 support personnel per physician). Only three did not share all of the support personnel working with them; in each instance the unshared individual was an RN/LVN. A consistent pattern for the training and certification of support personnel was apparent for all 22 practicing respondents. Nursing personnel had received formal training and were certified; technical personnel usually had received formal training and usually were certified; and clerical/administrative personnel seldom had received formal training and seldom were certified.

All but one of the eight solo practitioners retained an accountant to assist with the business aspects of their practice. The one exception retained a management company. Eight of the 14 group practitioners reported that their group employed personnel for this purpose (eg, business manager, office manager, bookkeeper); 4 also

2. Weekly activity for 8 solo and 14 group pediatricians.

	Solo		Group		Total	
	Mean	Median	Mean	Median	Mean	Median
Direct Patient Care (hr/wk)	48.3	47.5	45.5	46.8	46.5	46.8
During office hours	39.0	36.0	37.1	38.0	37.8	37.0
Nights & weekends	9.3	8.5	8.9	8.0	9.0	8.0
Telephone (hr/wk)	7.5	9.0	11.5	12.0	10.1	10.5
During office hours	6.0	5.0	5.6	5.0	5.7	5.0
Nights & weekends	4.0	3.5	7.0	6.8	5.9	5.0
Administration (hr/wk)	8.3	8.8	6.5	5.0	7.2	6.0
Patients (number/day)						
Ambulatory	30.4	29.0	33.9	32.0	32.6	30.0
Hospitalized*	3.4	3.5	4.7	4.0	4.3	4.0

*Majority of respondents excluded newborns.

retained an accountant. Five of the 14 group practitioners retained an accountant; two also retained a lawyer. The remaining group practitioner reported that his group had no one to assist them with the business aspects of their practice.

Screening Tests

Each of the 22 practicing pediatricians was asked about seven common screening tests (Fig 4). Tuberculosis skin test and hemoglobin/hematocrit measures routinely were performed most commonly during infancy; blood pressure, vision and hearing tests, in preschoolers; and urinalysis with about equal frequency in infants, preschoolers and school-age children. Urine culture (in girls only) usually was obtained as indicated.

Changes in Practice

To ascertain changes in the respondent's practice, each was asked to describe his practice five years ago. All six respondents in solo practice five years before remained in solo practice. One of the 12 respondents in group practice five years ago changed to an institutional administrative role. The number with a subspecialty emphasis increased from 9 to 13 respondents. Of the three respondents in the military five years before, two joined a group practice and one, an institutional setting, and two acquired a subspecialty emphasis. Of the five respondents in fellowship training five years ago, two entered solo practice; one, a group; two, an institutional setting, and all have a subspecialty.

In order to ascertain possible changes in the next five years, the 22 practicing pediatricians were asked, "What changes will your trade area require for pediatric care in the next five years?" Eight respondents indicated a need for more physicians, particularly pediatricians (two respondents specified neonatologists). Only one respondent believed there would be no need for additional physicians, because of lack of growth in his community. Four respondents indicated a need for improved facilities for newborn care. Three respondents desired improved continuing educational opportunities. Two respondents indicated a need for additional pediatric inpatient facilities in their community.

One respondent each expressed a need for better health insurance, more health maintenance organizations, improved office management, and more pediatric nurse pratitioners. Six practitioners did not identify a need for change in their community.

Relationship of Education to Practice

To gain insight into the relationship between preparation and practice, each of the 22 practicing pediatricians was asked, "What do you perceive as (your) strengths in your medical practice?" The pediatricians also were asked to identify the "method in which (that) skill or knowledge was obtained."

Most respondents in solo practice, who had no subspecialty, and who had completed their house staff training in 1965 or 1970 said their "strengths" had been gained from other than formal training alone (Fig 5). Cognitive knowledge more frequently was attributed to formal training, while attitudes and skills more frequently were acquired during practice (Fig 6).

Each of the 22 practicing pediatricians was asked, "How do you obtain continuing education?" Attending meetings and reading journals and books were named either first or second by most respondents (Fig 7).

3. Subspecialty emphasis by type of practice for all 30 respondents.

	Solo	Group	Institutional/ Academies	Total
No Subspecialty Emphasis	4	5	1	10
Not Limited to Emphasis	3	9	2	14
Limited to Emphasis	1	0	3	6

4. Screening; routine (by age) and as indicated. Percent of 22 practicing pediatricians.

	Routine* % 0–2 yr	% 2–5 yr	% >5 yr	As Indicated
Blood Pressure	5	82	14	5
Vision	0	91	0	14
Hearing	18	86	0	23
Tuberculosis Skin Test	86	55	55	9
Hgb/Hct	91	59	55	5
Urinalysis	59	55	41	14
Urine Culture (girls)	5	9	5	82

*May total more than 100% since some screening tests were performed routinely at more than one age.

5. Relationship between first perceived "strength" and method by which that knowledge, attitude, or skill was obtained for 22 practicing pediatricians.

	Method Obtained			
	Formal Training	Practice Experience	Both	Total
Type Practice				
Solo	2	3	3	8
Group	6	5	3	14
Specialty Emphasis				
No	2	3	4	9
Yes	6	5	2	13
Year Residency Completed				
1960	2	1	1	4
1965	3	3	3	9
1970	3	4	2	9

Each of the 22 practicing pediatricians also was asked, "Have you, in the past, had students involved in your practice?" and whether or not the respondent would accept students in the future. Nineteen respondents (86%) said they had had students: medical students in 14 instances, RN students in 11; LVN in three, house staff in two, pediatric nurse practitioner students in two, and one each of physician's assistant, medical assistant, and high school vocational students.

All but two of these 19 respondents indicated that they wished to continue to have students involved in their practice. One reported that "students took up too much of (his) time;" the other indicated that he would continue to accept medical students, but that "nursing students slowed (him) down too much." The three respondents who had not had students did not respond about the future.

6. Relationship between perceived "strengths" and method by which that knowledge, attitude, or skill was obtained for 22 practicing pediatricians.

	Method Obtained			
	Formal Training	Practice Experience	Both	Total
Knowledge				
Patient care	5	6	5	16
General knowledge	2	1	3	6
Specialty information	8	0	1	9
Skills				
Diagnostic	1	0	2	3
Management	2	7	0	9
Counseling	0	2	2	4
Attitudes				
Empathy	0	2	0	2
Confidence	0	2	0	2

*Multiple responses (strengths) possible for each respondent.

7. Ranking of continuing education methods utilized by 22 practicing pediatricians.

	Chosen By Number	Adjusted Score*
Meetings (AAP, state, postgraduate)	21	4.0
Reading (journals, books)	20	3.5
Clinical Faculty Appointment (teaching)	7	1.2
Conferences/Seminars	9	1.1
Grand Rounds	5	1.0
Audio (Digest) Tapes	5	0.8
Preceptorship	2	0.2

*Perfect score (all first choices) arbitrarily assigned a weight of 5.0.

Satisfaction with Practice

In order to obtain some measure of the respondents' satisfaction or dissatisfaction with their practice, each of the 30 was asked, "Are you satisfied with the income derived from your practice?" Seven (23%) answered either "no" or "not completely." Of these seven, three had completed their training in 1960, two in 1965, and two in 1970. Two of the seven dissatisfied with their income were in an institutional/academic setting, two were in solo practice, and three were in group practice. Four of the five practicing pediatricians had a subspecialty emphasis.

Respondents' Evaluation of Interview

Finally, each of the 30 respondents was asked, "Do you think the information in this interview will give us an accurate picture of your practice?" Five of the eight respondents in academic/institutional settings said that it would not, usually because the interview was "geared more for the practicing pediatrician."

Five of the 22 practicing pediatricians also felt that this interview would not give an accurate picture of their practice. The first, because, "I don't know what type of patient I see every day. You didn't ask how the American Academy of Pediatrics could make me a better pediatrician. How will this information help me? Why are MDs getting out of pediatrics?" The second, because, "I need a scale to grade my satisfaction with practice. You didn't inquire into seasonal fluctuations of patient load. There is a wide discrepancy between training and practice." The third, because, "The questions are too structured." The fourth, because, "I also see adults in my practice." The fifth, because, "It was hard for me to figure out the hours."

Discussion

This study was designed to obtain data with which to evaluate pediatric residency training in Texas and its relevancy to the present and future practice of pediatrics. The interpretation of information collected from a very small sample population (ie, 30 respondents from approximately 18,000 pediatricians in the United States) is subject to many pitfalls and distortions. Many results of the interview proved to be similar to those of a recent study by the American Academy of Pediatrics,[25-28] including percent of respondents in private practice, percent of women, percent in solo and group practice, number of hours worked per week, and number of patients per day. The AAP study was a stratified random sample of 1,300 members using a self-administered questionnaire. Considering the differences in design, administration and sample size of these two contemporary studies, it is remarkable that the results are so comparable. This probably is due to a certain homogeneity of pediatric practice in the United States, but also supports the validity of the present study.

Another point which should be considered in evaluating the present survey is the respondents' perception of how accurate a picture of their practice it provided. Since

the interview had been designed primarily for practicing pediatricians, it is not surprising that five of the eight respondents in institutional/academic settings said the questions were not sufficiently flexible to reflect their situations. Five (23%) of the practicing pediatricians also reported that the survey did not accurately portray their practices.

Because this was an unexpectedly high percentage, the reasons they gave were further analyzed to determine possible weaknesses in the questions. Only two of the critiques were related to a methodological problem; the remarks of the other three respondents appeared to reflect more of a dissatisfaction with some aspect of their own practice. That conclusion is supported by the fact that two of the three also were dissatisfied with the financial remuneration of their practice.

In considering possible recommendations for training programs, it is necessary to review the past, present and projected characteristics of the respondents' practice. The average pediatrician in solo practice has three support personnel in his office. This is in keeping with the recommended "model" from the AAP study of 1967.[23] The majority have the business affairs of their practice handled by an outside accountant. Half indicate a subspecialty emphasis, usually obtained through a combination of residency training, continuing education and practice experience. Most depend upon reading journals and books as their primary source of continuing education and have students involved in their practice. The majority indicate that the ability for what they do best in practice (first strength) was obtained from other than formal training alone—a finding similar to that of other studies.[29-30]

Since the solo practitioner represents 25% to 30% of all pediatricians, and since none of the present respondents have left solo practice in the last five years, it seems appropriate for residency training programs to give specific attention to their needs. We would suggest: a structured ambulatory experience permitting a close working arrangement with a limited number of support personnel and attention to team management skills; specific cognitive knowledge in office management[23,31,32] and the business aspects of practice; and experience with self-teaching methods. Assistance to the trainee in the selection of and preparation for a subspecialty interest should include consideration of the appropriate mix of tertiary patient care and ambulatory experience during residency.

The majority of the 14 respondents in group practice share support personnel with other physicians (median 1.3 per physician) and have the business affairs of their practice handled on-site by personnel employed expressly for this purpose. The 29% of respondents (4/14) in large mixed specialty groups is similar to the increasing trend toward this type of practice arrangement noted in the national AAP study.

A significant number of the respondents indicated that their first strength was acquired from formal training alone. Attendance at meetings, conferences and seminars was reported about as frequently as reading for the preferred source of continuing education. Three observations concerning subspecialty interest seem pertinent: two thirds of the group practice respondents have such an interest, there is an increasing tendency over time for those who completed their residency training several years ago to develop a subspecialty interest, and many of the more recent graduates acquired these skills through additional formal fellowship training.

Although residency training, as presently constituted, seems better suited to the individual joining a group practice (ie, interaction with other physicians, many of whom are in different specialties; shared support personnel; heavy emphasis on subspecialty secondary and tertiary patient care; and frequent seminars and conferences) it seems appropriate for training directors to reexamine the needs of group practitioners. Attention to experiences designed to improve understanding of group dynamics (ie, interpersonal feelings and cooperative efforts among various team members) would seem particularly useful. Two features of fellowship training also need to be considered for those entering group practice: the duration of training to acquire subspecialty skills and the construct of the fellowship program (ie, balance between direct patient care and academic pursuits).

In the national AAP study, more than half the respondents said school problems represented the greatest increase in their practice in the past five years; allergies, hospital newborn care, care of the sick in hospitals, and counseling were other areas where major increases had occurred. This corresponds with the findings of the present study; learning disorders and neonatology were the two most common areas of subspecialty emphasis, and improved newborn facilities and increased numbers of neonatologists were commonly identified community needs. Program directors, then, should give specific attention to the areas of school problems and intensive newborn care in their training programs.

That the majority of practicing pediatricians (86%) have had student involvement in their practice and desire to continue this experience is particularly heartening. Increased efforts to include and diversify the role of the practicing pediatrician in medical education seems to be indicated.[2-5,7,11,15,22,29,30,33-35] This would appear to be advantageous from two points: increased continuing educational opportunities for the practitioner (eg, mini-

fellowships and preceptorships) and more practice-oriented perspective in training programs (eg, increased emphasis on routine health supervision and continuing learning experiences). The latter also might insure attraction of individuals well suited for the practice of pediatrics and reduce the incidence of the "dissatisfied pediatrician syndrome."[5,10,11,15,33-35] In addition, practicing physicians should be encouraged to participate with the academic community in cooperative investigations. A critical study of methods for child health supervision,[22] similar to that conducted in Sweden,[36] would seem particularly appropriate.

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Intraoperative autotransfusion for abdominal aortic aneurysm repair

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Ten patients receiving intraoperative autotransfusion during the repair of abdominal aortic aneurysms were evaluated. They were compared with ten similar patients who had the same operative procedures without autotransfusion. Our findings suggested that intraoperative autotransfusion is a relatively safe and economical approach to blood replacement during abdominal aortic surgery. The lack of transfusion reactions, the lack of threat of hepatitis, and the rapidity with which blood can be replaced suggest that this may, in fact, be the blood replacement method of choice in this group of patients.

Refinements in technique and improvements in vascular prostheses have diminished the quantity of homologous blood given during elective operative procedures upon the abdominal aorta. Even so, most surgeons still find it necessary to give blood to such patients.

These transfusions subject the patients to small, but real, risks of transfusion reactions and hepatitis. In addition, the proliferation of cardiovascular surgery and the increasing volumes of trauma surgery have placed greater demands on blood banks at a time when they are avoiding paid donors and thus diminishing the amount of blood available. The advantages of a safe and economical technique that can obviate the need for homologous blood are apparent.

The idea of intraoperative autotransfusion is more than 100 years old; however, it has been less than ten years that reasonably safe systems for carrying out this procedure have been generally available.[1] Real and theoretical hazards have hampered its acceptance. One major objection has been the need for systemic anticoagulation of the patient to prevent clotting within the autotransfusion device. As patients undergoing surgical treatment of abdominal aortic aneurysms ordinarily are given systemic heparin, these patients seem to be ideal candidates for autotransfusion. In order to evaluate the efficacy of autotransfusion in abdominal aortic surgery, we studied ten consecutive patients who had elective aneurysm repairs using this technique. We compared them with ten consecutive similar patients operated upon by the same surgeons without autotransfusion. In addition to evaluating the relative safety of autotransfusion, its cost was compared to that of transfusion with homologous blood.

Materials and Methods

During the first nine months of 1977, ten elective abdominal aortic aneurysm repairs were performed utilizing intraoperative autotransfusion. A Bentley disposable autotransfusion unit (ABS-200) was used in each case (Fig 1). This device basically consists of a suction line, a collection and defoaming chamber, a filter (125 micron), and 2 infusion lines. The infusion lines were connected to 14-gauge plastic needles placed in the patient's arm veins. Suction was provided by an ordinary roller pump. All patients received systemic heparin (10,000 units). An additional 2,500 units of heparin were placed in 600 cc of normal saline solution which was used to prime the system. In an effort to minimize hemolysis due to red cell trauma at the blood-air interface, the autotransfusion suction was used only intermittently to remove large pools of blood. The unit was managed by an extracorporeal perfusionist. Blood was intermittently returned to the patient as directed by the anesthesiologist. Preoperative and postoperative hematocrit values, homologous blood transfusions given, and costs were analyzed. The effects of autotransfusion upon free plasma hemoglobin and renal function were noted. The results were compared to those found in a group of ten consecutive elective abdominal aortic aneurysm resections recently done by the same surgeons without the use of autotransfusion. The authors performed all 20 of the procedures in Beaumont, Texas.

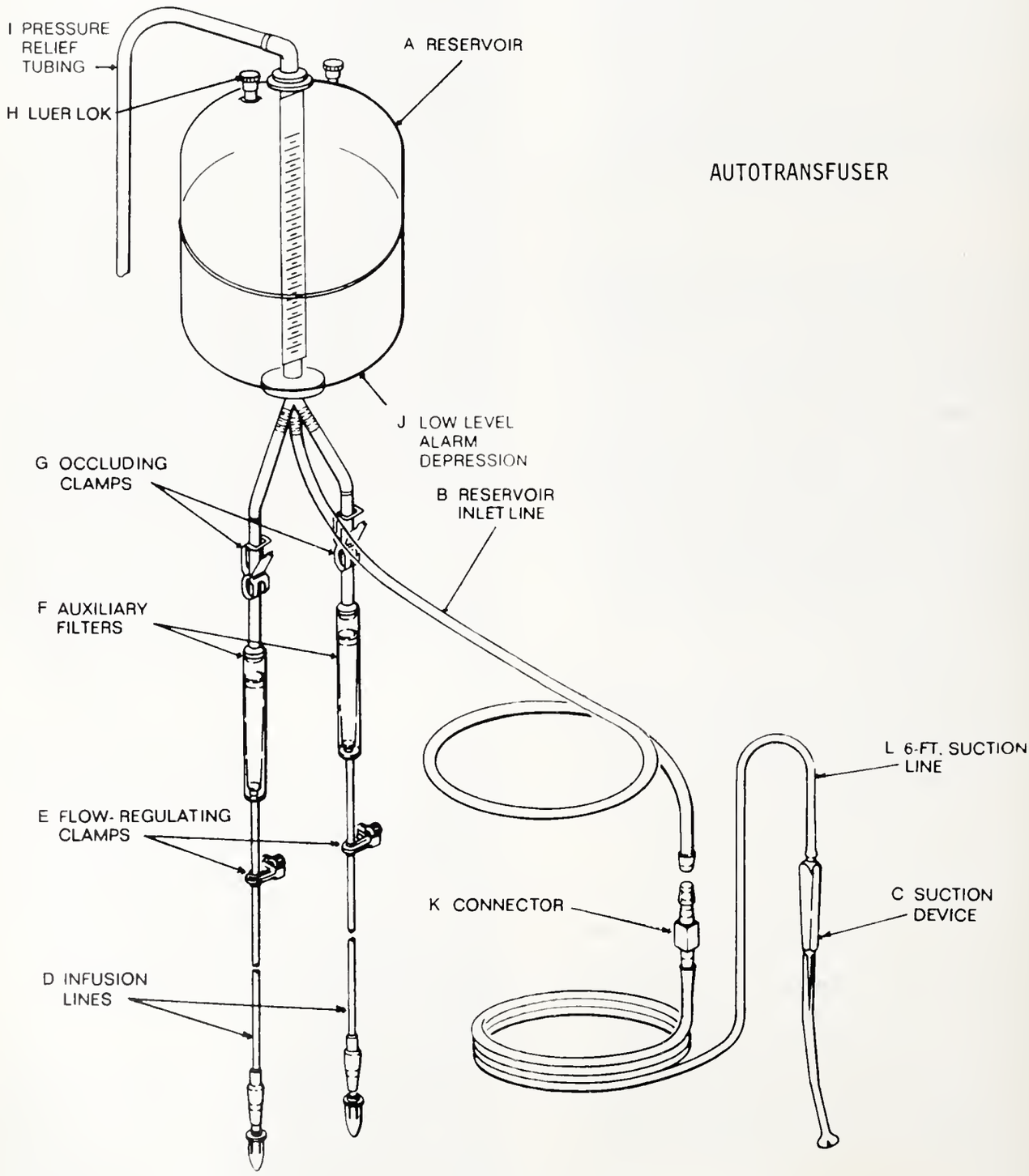
Results

The ten patients who had elective aneurysm resections done using autotransfusion received 4 units of homologous blood, an average of 0.4 units per case. Seven of the patients received no blood, two received 1 unit, and one received 2 units. No patient required additional transfusions after surgery. The ten patients who had elective aneurysm resections done without autotransfusion received a total of 26 units of homologous blood, an average of 2.6 units per case. One of the patients received no blood, one received 1 unit, and eight received more than 1 unit (Fig 2).

Hematocrit values greater than 30% were present in nine of the autotransfused patients the day after surgery. The tenth patient's hematocrit was 27.1%. This increased to 30.5% within two days, however. The increase in hematocrit can probably be accounted for by a diuresis

with correction of an intraoperative hemodilution. Only one of these ten patients showed a significant drop in the hematocrit level after the first postoperative day, and the cause was not found. In general, patients receiving autotransfused blood had postoperative hematocrit values comparable to those of patients who received homologous blood only (Fig 3).

Although gross hemoglobinuria was evident in most of the autotransfused patients, the level of plasma hemoglobin was never excessively high and ranged from 6.1 mg/100 ml to 170 mg/100 ml. Renal function as estimated by serum creatinine levels was not significantly altered in either group of patients (Fig 4). Platelet counts



1 Schematic of the autotransfusion apparatus, less pump.

were generally diminished immediately after autotransfusion; however, in only one of the ten patients was the platelet count less than 100,000/cu mm. This patient's platelet count was 93,000/cu mm before surgery. Fibrinogin levels tended to drop during autotransfusion, but not to below normal levels. One of the patients in the autotransfusion group died on the fifth postoperative day after having been ambulatory for three days. Autopsy was not performed; a pulmonary embolus was suspected clinically. There were no other deaths in either group, and none of the other patients had significant postoperative complications.

Analysis revealed no real difference in the total cost for blood in the two groups. Homologous blood basically costs the patient $45 per unit. However, additional expenses were incurred during transfusions. These included the cost of typing, crossmatching, handling, tubing, filters, and blood warmers. These additional charges brought the cost of 1 unit of homologous blood to $91.80. Because many of these items were applied to or used during subsequent transfusion, the remainder of the transfusions were less expensive. However, $57.50 was the minimum the patient paid for any unit of homologous blood. With each patient in the nonautotransfused group receiving an average of 2.6 units, cost for blood per patient averaged $183.80 (Fig 5).

Basic cost of the disposable portion of the autotransfusion unit was $45, but the hospital charged the patient $150 for use of the unit. This did include the services of an extracorporeal perfusionist. Each patient in the group also received an average of 0.4 units of homologous blood at a calculated cost of $36.72. This made an average cost of $186.72 for blood to each patient in the autotransfused group (Fig 6). The average patient who had autotransfusion paid $2.92 more for blood than did his counterpart in the other group (Fig 7).

Discussion

Comparison of the two groups indicates that autotransfusion can be used relatively safely and economically during elective repair of abdominal aortic aneurysms. No significant problems that could be related to autotransfusion were encountered, but the literature indicates that there are hazards associated with this technique.[2, 3] Major hazards have been air emboli and bleeding diathesis. The problem of air emboli is inherent in the particular autotransfusion device used. Other devices have been reported to eliminate this problem.[4] Air embolism was avoided in this series by assigning one person the full-time responsibility of managing the autotransfusion unit. This happened to be an extracorporeal perfusionist whose services increased the cost of the procedure. A circulating nurse could be assigned this responsibility; however, the autotransfusion unit should be her only responsibility if mistakes are to be avoided.

Bleeding problems often occur after the transfusion of large amounts of homologous or autologous blood. In

2. Summary of homologous blood transfusions given in the study.

Autotransfused Group		Control	
Pt.	Units of Blood	Pt.	Units of Blood
1. M.P. 52/M	0	1. J.S. 65/M	1
2. E.B. 47/M	0	2. J.B. 75/M	2
3. C.E. 64/M	0	3. J.T. 62/M	0
4. J.H. 58/M	0	4. M.B. 66/M	3
5. L.H. 63/M	0	5. D.G. 71/M	4
6. D.R. 62/M	2	6. G.E. 81/M	2
7. R.D. 54/M	0	7. G.F. 68/F	3
8. H.Y. 64/M	1	8. A.F. 64/M	5
9. G.M. 54/M	0	9. D.B. 89/M	4
10. C.M. 70/M	1	10. W.S. 75/M	2
Total	4	Total	26
Average units per patient 0.4 units/pt.		Average units per patient 2.6.	

3. Summary of the preoperative and postoperative hematocrit values.

Autotransfused Group				Control			
	Hct				Hct		
	Pre-op	Post-op			Pre-op	Post-op	
Pt.		1 day	3 days	Pt.		1 day	3 days
1. 52/M	45.0	40.0	31.3	1. 65/M	45.0	40.3	41.2
2. 47/M	50.0	40.8	38.3	2. 75/M	35.4	34.2	28.5
3. 64/M	39.4	33.2	33.5	3. 62/M	40.6	36.0	41.0
4. 58/M	43.2	43.3	42.6	4. 66/M	40.9	38.4	30.5
5. 63/M	50.8	39.4	33.1	5. 71/M	37.5	39.5	39.2
6. 62/M	36.8	27.1	30.5	6. 81/M	35.1	38.3	29.3
7. 54/M	38.7	38.0	36.0	7. 68/F	33.4	34.6	31.5
8. 64/M	34.5	33.5	31.7	8. 64/M	40.4	27.9	26.7
9. 54/M	50.2	45.1	45.2	9. 89/M	35.2	31.1	35.3
10. 70/M	41.8	38.2	25.9	10. 75/M	41.0	37.0	42.7

4. Summary of the preoperative and postoperative creatine levels.

Autotransfused Group			Control		
Pt.	Creatine		Pt.	Creatine	
	Pre-op	Post-op		Pre-op	Post-op
1. 52/M	NA	1.1mg%	1. 65/M	1.2mg%	1.4mg%
2. 47/M	1.1mg%	1.0mg%	2. 75/M	NA	1.1mg%
3. 64/M	1.6mg%	1.3mg%	3. 62/M	NA	1.4mg%
4. 58/M	1.2mg%	1.3mg%	4. 66/M	1.1mg%	0.9mg%
5. 63/M	1.0mg%	1.1mg%	5. 71/M	NA	0.7mg%
6. 62/M	1.3mg%	1.8mg%	6. 81/M	NA	2.6mg%
7. 54/M	1.2mg%	NA	7. 68/F	NA	1.5mg%
8. 64/M	2.1mg%	1.4mg%	8. 64/M	NA	1.0mg%
9. 54/M	NA	0.7mg%	9. 89/M	1.0mg%	1.1mg%
10. 70/M	2.0mg%	2.0mg%	10. 75/M	NA	1.15mg%

5. Summary of the cost of homologous blood to the patient.

Blood Cost/Unit to Hospital		Blood Cost/Unit to Patient	
Blood/Unit	15.00	Base Cost/Unit	45.00
Processing/Unit	25.00	Cross matching/unit	7.50
R.I.A.	5.00	Handling/unit	5.00
Base Cost/Unit	$45.00		$57.50
		1 time charge for group & type	7.50
		Total cost for 1st unit	$65.00
Administration Charge		Total Charge/x units	
Blood filter/4 units	$15.00	1st unit	$91.80/unit
Blood tubing/4 units	5.00	2nd–4th unit	$57.50/unit
		5th unit	$77.50/unit
Cost/4 units	20.00	6th–8th unit	$57.50/unit
1 time charge-Bloodwarmer	6.80		
Cost for 1st–4th unit	$26.80		

the case of homologous blood, the bleeding problems usually occur when enough blood deficient in labile clotting factors has been delivered to dilute the patient's own clotting factors. In the case of autologous blood, extravascular (and perhaps intravascular) clotting can cause a consumption coagulopathy. This apparently has been common when systemic heparin was not utilized.[5] Our experience with autotransfusion of a patient with a ruptured abdominal aortic aneurysm (not included in this series of elective cases) supports this need for systemic heparin. In that case, systemic heparin was not used initially. The unit was primed with the usual heparin saline solution and the patient received an estimated 3,000 cc of autotransfused blood before heparin was given. This patient had a severe bleeding problem with loss of platelets and fibrinogen. He did survive after receiving specific component therapy; however, we think that failure to give systemic heparin early definitely complicated this patient's perioperative course and increased the risk of death due to exsanguination. Brener and his associates feel that larger doses of heparin (300 units/kg of body weight) make autotransfusion of larger volumes of blood safer.[6] Our cases were done with smaller heparin dosages (100 to 150 units/kg of body weight) and there were no apparent problems. Most of our patients received less than 2,000 cc of autotransfused blood, and larger heparin doses may be indicated when extremely large volumes of blood are to be autotransfused.

Although hemolysis was seen in all autotransfused cases, the degree of hemolysis was not severe and was less than that usually seen during cardiopulmonary bypass for cardiac surgery.

6. Summary of the total cost of autotransfusion to the patient

Cost of autotransfuser to hospital	$ 45
Handling and profit	$ 30
Cost of technician	$ 75
Total charge to patient	$150

7 Summary of the cost of autotransfused versus homologous blood.

Average Cost to Autotransfused Patient		Average Cost to Control Patient (Homologous)	
Autotransfuser	$150.00	2.6 Units/pt.	$183.80
0.4 Units/pt.	36.72	Plus: Cost of hepatitis in 0.5% to 13% of patients receiving homologous blood.	
	$186.72		

No renal impairment was seen in any of the 20 patients; adequate hydration and avoidance of hypotension probably account for this. Our anesthesiologists have noted that autotransfusion tends to make it easier to maintain a stable blood pressure because the replacement blood is so readily available.

Although autotransfusion was more expensive than homologous transfusion in this study, the difference was almost insignificant ($2.92 per case). Undoubtedly autotransfusion could be made less expensive as the charge to the patient for this device was an arbitrary one. In this study, autotransfusion was theoretically the least expensive method in those patients receiving more than 2 units of homologous blood.

Conclusion

Intraoperative autotransfusion can be carried out safely during procedures upon the abdominal aorta. Adequate systemic heparinization is important, particularly if large volumes of blood are to be given. Using this technique, most of these procedures can be done without homologous blood. The cost to the patient is comparable to that of homologous blood and the risks of hepatitis and transfusion reactions are reduced. The threat of sudden, catastrophic hemorrhage and hypotension is reduced by the ability to retrieve and replace blood rapidly. These advantages make us feel that intraoperative autotransfusion is the blood replacement method of choice during surgical procedures upon the abdominal aorta, and probably during most other surgical procedures in which systemic heparin is utilized.

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Cervical implantation of an ectopic pregnancy: two case reports

Philip J. Mead, MD; Gary L. Smith, MD; Donald Rubell, MD

Two cases of patients with cervical pregnancies are reported. One patient was using an oral contraceptive while the other used an intrauterine device for birth control. Cervical pregnancy is briefly reviewed and its treatment discussed.

Cervical implantation of an ectopic pregnancy presents unusual problems in diagnosis and management.[1-15] Two patients seen at Wilford Hall Medical Center (WHMC) illustrate the clinical extremes that this entity presents. Astute diagnostic and clinical management is essential to prevent a catastrophic event for the patient.

Case Reports

Case 1: A 24-year-old, para 0000, presented with vaginal bleeding of eight hours' duration. She was taking a combination oral contraceptive and denied missing any pills. Her last menses had been 2½ weeks previously. Her present bleeding was slightly heavier than a menstrual period and was *not* associated with abdominal pain.

Upon physical examination, the vital signs were normal. The vagina contained a few small clots of blood. The cervix had a red, smooth polypoid lesion which obscured the external os and was anchored to the right lower lip of the portio vaginalis by a 1.5-cm base. The uterus was small, mobile, anterior, and sounded to 7.5 cm. No adnexal masses were noted. No blood was obtained by culdecentesis.

The polypoid lesion on the cervix was twisted from its base with ring forceps and hemostasis obtained with cautery and pressure. An endometrial biopsy was obtained. Pathologic examination of the polyp showed inflamed decidua with villi (Fig 1) and the endometrial tissue was secretory with a prominent stromal decidual reaction. The diagnosis of a cervical pregnancy was made and a dilatation and curettage was performed to prevent continued irregular bleeding. Pathologic examination of the D&C specimen showed a secretory endometrial pattern with prominent decidual reaction.

Case 2: A 27-year-old, para 2002, presented with heavy vaginal bleeding. She stated that a copper-7 intrauterine device was inserted eight months previously at her postpartum evaluation following a cesarean section. Upon examination normal pelvic anatomy was noted and 2 cm of clear fluid was obtained by culdecentesis. A pregnancy test gave negative results. The IUD was removed and the patient returned home with no more significant bleeding. One month later, a 12-week size uterus was detected on pelvic examination. A repeat pregnancy test was negative.

Three days later, the patient was admitted to WHMC with painless vaginal bleeding. Profuse bright red bleeding was coming from a closed cervical os. The uterus was 14 weeks size. Sonography was not diagnostic. An oxytocin infusion did not alter the amount of bleeding. As the patient expressed a desire for no further children, a total abdominal hysterectomy was planned. Upon entering the abdomen, we discovered a cervical pregnancy. Asymmetry of the uterus was noted, with an enlarged cervix with a friable mass extending from it into the broad ligament on the left. Although total abdominal hysterectomy was performed with difficulty, the postoperative period was without incident. When the surgical specimen was opened, a left cervical implantation was noted with a fetus measuring 1.6 cm crown to rump (Fig 2).

Discussion

The reported incidence of cervical pregnancy has varied from 1 in 17,000 to 1 in 1,000 pregnancies.[11,15] No previous cases have been reported with a patient who was taking oral contraceptives or who was using an intrauterine device. The classic history of a cervical pregnancy is painless vaginal bleeding in the first trimester of the multiparous patient. In one series, an association between cervical pregnancy and previous curettage was found.[15] One of our patients was primiparous, the other a gravida 3 with a previous cesarean section.

Classically, a distended cervix with open external os and tightly closed internal os is noted on physical examination. The implantation may be located on the portio vaginalis or in the endocervical canal. The uterus is often hourglass in shape, and the uterine fundus may be mistakenly thought to be a myoma.[13] Cervical pregnancies have ruptured into the abdomen to present as a hemoperitoneum.[12,14] Further delay in the surgical management of our second case could have resulted in such an occurrence.

The proof necessary for the diagnosis of a cervical pregnancy has been debated. Rubin's[11] criteria from autopsy or surgical pathologic specimens are often listed:

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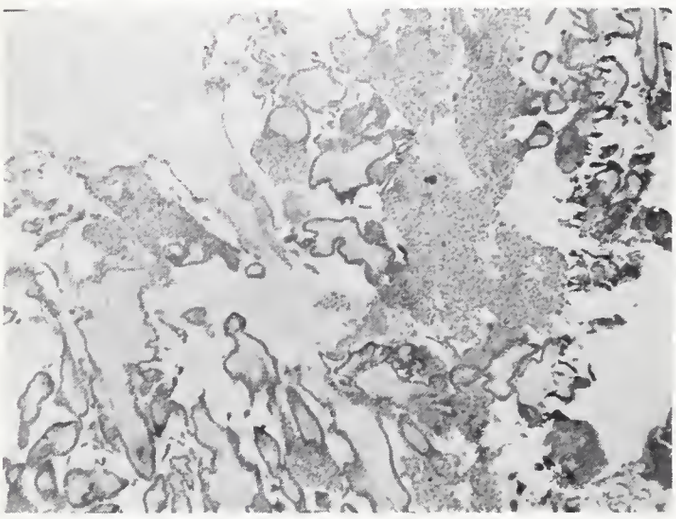

1. Cervical polyp. X 40.

2. Hysterectomy specimen with cervical pregnancy.

(1) there must be cervical glands opposite the placental attachment; (2) this attachment of placenta to cervix must be intimate; (3) the whole, or portions of, the placenta must be situated either below the entrance of the uterine vessels, or below the peritoneal reflection of the anterior and posterior surfaces of the uterus; and (4) fetal elements must not be present in the corpus uteri. Duckman[3] lists three requirements: (1) a dilated, thin-walled cervical canal containing histologic evidence of products of conception; (2) a patulous external os; and (3) a small, firm uterine body with a normal sized internal os resting on top of the dilated cervix.

Death from the sequela of cervical pregnancy has been reported.[1,9,11,14] With the advent of blood transfusions and aggressive surgical therapy, this catastrophe can be avoided.

The approach to cervical pregnancy will vary with its location and size. Oxytocin is usually of little aid in controlling the bleeding because of the absence or reduced number of muscle fibers in the involved area. Indeed, painless vaginal bleeding during early pregnancy with little effect from oxytocin administration should alert one to the correct diagnosis. Many have been able to successfully extirpate the smaller embryo bluntly or with curettement, controlling the bleeding with vaginal packing.[6,9,10] Roth[10] has recommended an attempted vaginal approach up until the 12th week of pregnancy with hysterectomy being reserved for uncontrollable hemorrhage.

As was true with most reported cases, the correct diagnosis was not made initially in either of our cases. For the first patient, simply twisting the polypoid implantation from its base was sufficient therapy. The second case was treated conservatively at first, without success, and ultimately required hysterectomy. Further attempts at vaginal manipulation probably would have resulted in rupture and significant internal and vaginal hemorrhage. The widely varied degrees of therapy required by these two patients illustrate the variable clinical spectrum seen with cervical pregnancies.

Conclusion

Although massive and uncontrollable hemorrhage has often been reported in more advanced gestations, this is not always the case in patients with earlier gestations. Cervical pregnancy is an unusual and hazardous form of ectopic pregnancy which is rarely recognized. Cervical pregnancy should be included in the differential diagnosis

for any patient with vaginal bleeding, especially if the condition is not responsive to oxytocin or when a cervical lesion is present. Contraceptive measures with either birth control pills or intrauterine devices does not exclude this unusual complication of pregnancy.

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Reprint requests to Philip J. Mead, MD, Chief, OB/GYN Service, USAF Hospital, Mountain Home AFB, ID 83648.

Washington harbingers of future shock

James N. Sites

Physicians, like businessmen, are being buried under a growing mountain of government regulations and paperwork.

I do not claim to be an expert on medicine and health or the welter of laws and controls in those fields. I just know that when sick, I might call on a doctor, just as a physician might turn to a lawyer if sued. Similarly, when enough Americans feel they have enough of a problem, they run to government, demanding that the President act, that Washington do something. And have the politicians ever been responding!

One might call the first day of the second session of the 95th Congress a Red Letter Day in Washington. Or, perhaps, a Red Ink Day or a Red Tape Day. Or, best of all, a Red Light Day, flashing signals that warn of the consequences of explosive government growth—harbingers of future shock.

What are some of these harbingers?

In 1949, Britain's George Orwell wrote *1984*, dramatizing threats of government take-over of private functions. But, 1984 was 35 years away; and besides, Orwell's dreadful picture was overdrawn, literally too "far out."

Well, was it? Is it?

In six years we will reach 1984, and trends appear to be carrying us toward the world Orwell foresaw.

In 1949, federal spending totaled $38.8 billion, and government had a budget surplus. Since then, government spending has soared. The federal budget for 1978 is $460 billion, or 12 times that of 1949. And this year's deficit is almost $60 billion—larger than our entire 1949 budget.

Interest payments on the federal debt this year are $48 billion—also far greater than all federal spending in 1949. As Washington has approved more programs, we have accumulated 24 budget deficits in 29 years. The result is that the Federal debt has tripled to more than $700 billion.

The number of government employees also has soared. In 1949, the government employed 6.2 million, or almost 1 out of 10, workers. Today, nearly 15 million, or almost 1 in 6, workers are on public payrolls.

Most serious of all, government is growing faster than the economy that supports it, like a giant tree shooting up beyond its root structure. Local, state and federal government spending amounted to 22.5% of our gross national product in 1949. It now is more than 35% of the GNP, and, at present growth rates, will exceed 50% before the end of the century.

While government spending, deficits, and employment have been exploding, more and more controls have been piled on the nation's businesses and on you in medicine and health, making it increasingly difficult for the private sector to produce new wealth for government's ravenous appetite.

From 1962 to 1974, both Republican and Democratic Congresses enacted 29 bills creating 24 new regulatory agencies. We now have more than 1,000 federal programs, more than 80 regulatory agencies and more than 100,000 government workers whose primary responsibility is to tell Americans what they can and cannot do.

The Office of Management and Budget has estimated the cost of these controls to be as much as $130 billion a year—costs ultimately borne by consumers. This staggering sum is equal to about $2,000 per family.

By no coincidence, since 1949, consumer prices have risen 113%, with three quarters of this jump coming in the past decade.

How did America stumble into this sea of red ink and this tangle of red tape?

We have been building up to this governmental crisis for at least 40 years, as people turned more often to government to solve the painful problems of unemployment, medical and health needs, old-age insecurity, discrimination, ignorance, and other social, economic and political challenges.

Although we can't live without effective government, we must ask ourselves how much government the economy can support and still function effectively? When does an effort to correct abuses become an abuse in itself? When do you reach the point of no return?

This issue leads to the nation's foremost political question: How much government can we take and still preserve our priceless personal freedoms?

We've too long been making a god out of government, and the god has clay feet. The impact shows up in chronic inflation and unemployment, growing economic instability, tax evasion, spreading cynicism and distrust of government and other personal and social ills.

Many government programs are backfiring, creating pervading political paradoxes. Sharply rising minimum wages shut young people and marginal workers out of the job market; well-to-do college students use food stamps; welfare programs dry up work incentives; natural gas regulation reduces new drilling and aggravates

energy shortages; food and drug regulations deter the introduction of new medicines.

People's health is not necessarily improved by their running to doctors and getting pills, and public problems are not necessarily solved when people run to government for federal funds, unless public action stimulates private incentives and private solutions.

If freedom is to survive, people must see through Washington's illusions and delusions. One of the most notorious of these is the assumption that people can get something for nothing. Who really pays for the rising tide of social handouts, subsidies and boondoggles? Businesses do not pay taxes—they collect them from you and me—the productive workers.

The health field illustrates as few others the dismal results of government intervention. Washington has poured billions of dollars into Medicare, Medicaid and other programs, to improve medical care. And, in the process, it has helped stimulate an explosion in health costs. This, in turn, stimulates political demands for further government intervention in the form of a $168 billion national health insurance plan.

Even if taxpayers could be induced to finance such a program, would it really solve the problem or worsen it?

The President's Council on Wage and Price Stability answered that question in its 1976 report on health care costs: ". . . the Federal government, instead of being part of the solution, is part of the problem of rising health care costs. . . To add yet another layer of cost-raising regulations, which would inevitably accompany any Federal effort, would only be to compound the existing problem."

We need a moratorium on the passage of new regulations and real effort to restructure the present regulatory tangle.

Rather than more public servants, we need to make our overblown, overpaid, and underworked bureaucracy do a better job.

The great need of our time, in short, is to get government out of our pockets and off our backs and back onto the track of national greatness.

Only we can make government responsive and responsible. The solution lies in creating a new political community of workers, producers, and taxpayers, in mobilizing the vast, untapped power of the people who are paying the bill for government excesses, and in bringing this power to bear on Washington. This means keeping informed, writing letters and wires, buttonholing Congressmen on the issues, voting the right kind of people into office and keeping them right once they're there.

As one who has been inside Washington since 1951—almost since the appearance of Orwell's portentous *1984*—I believe that the great medical profession, with its millions of contacts and unrivaled credibility, can play a decisive role in this battle. You can hold up a beacon of hope that America will not be buried by government excesses and the great flame of freedom will not be quenched in the quagmire of petty politics.

It is to undertake this great mission that I urge you.

James M. Sites, Senior Vice President, National Association of Manufacturers, 1776 F Street NW, Washington, DC 20006.

This article is based on Mr Sites' address to the Texas Medical Association's Conference on Legislation and Medical Service, Jan 21, 1978, in Austin.

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Authors' names and degrees should follow the title, and their mailing addresses should be listed at the end of the article.

An introductory summary of 50–75 words is required.

Text should be narrative with complete sentences, few abbreviations, and logical subheadings. For spelling and usage the editors follow "Dorland's Illustrated Medical Dictionary," 25th edition, and "Webster's Third New International Dictionary, Unabridged."

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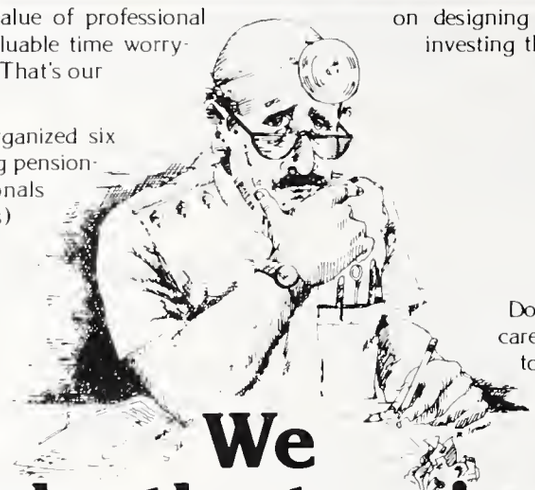

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DEATHS

Dr Gleason

Dr Holt

Dr Mantzel

Dr McKenna

Dr Moore

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Dr Trotter

W. F. Armstrong, MD

William Franklin Armstrong, MD, 77, died Jan 31, 1978. He had been a physician and surgeon in Fort Worth for more than 50 years before his retirement in 1975.

A native of Coryell City, Tex, Dr Armstrong was a graduate of Hardin-Simmons University, Abilene. He attended the UT Medical Branch, Galveston, and received his medical degree from Tulane University School of Medicine in 1922. His internship was at Charity Hospital of Louisiana, New Orleans.

Survivors include Dr Armstrong's daughter, Mary Jo Berryman, Fort Worth; a sister; three granddaughters; and one great-granddaughter.

W. G. Bryan, MD

Wirt Gold Bryan, MD, 95, a long-time Houston physician, died Feb 24, 1978. He was an honorary member of Texas Medical Association and Harris County Medical Society.

The native of Shop Spring, Tenn, was a 1908 graduate of Vanderbilt University School of Medicine. His internship was at New York Hospital (1908–1909).

Survivors include Dr Bryan's wife, Viola Snarr Bryan, Houston; daughters, Lucille Bartels, Anna, Ill, and Catherine Collins, Houston; son, Dr Joseph Bryan, Bluefield, WV; a sister; brother; ten grandchildren; and five great-grandchildren.

B. G. Campbell, MD

Billy Gay Campbell, MD, a Wimberley physician, died March 5, 1978. He was 53.

A native of Moran, Tex, Dr Campbell attended Baylor University and received his medical degree from UT Medical Branch, Galveston, in 1954. His internship was at Robert B. Green Memorial Hospital, San Antonio.

Dr Campbell is survived by his wife, Phyllis Stroud Campbell, Wimberley; sons, Richard Campbell, Corpus Christi, and David Campbell, San Marcos; daughters, Ann Campbell and Mrs Allan Williams, San Marcos; his mother; and one sister.

Ruby K. Daniel, MD

A Dallas ophthalmologist, Ruby Kathryn Daniel, 76, died Feb 13, 1978. Dr Daniel was an honorary member of the Dallas County Medical Society and Texas Medical Association, and past president of the Dallas

Academy of Ophthalmology and Otolaryngology. She was a clinical assistant professor of ophthalmology at UT Southwestern Medical School, Dallas.

Born in Duncanville, Tx, Dr Daniel received her undergraduate education at Southern Methodist University, Dallas, and The University of Texas, Austin. In 1928 she was graduated from Baylor University College of Medicine. After an internship at Lane-Stanford Teaching Hospital in San Francisco, she completed an ophthalmology internship and residency at the Albert Merritt Billings Hospital, University of Chicago.

D. R. Foster, MD

Dee Robert Foster, MD, Hale Center, an honorary member of Texas Medical Association, died Dec 17, 1977. Dr. Foster, 75, was past president of the Hill County Medical Society, past secretary of the Hale-Floyd-Briscoe County Medical Society, and director of the Northwest Texas Chapter of the Myasthenia Gravis Foundation.

The general practitioner was a native of Grapevine, Tex, and was graduated from The University of Texas, Austin, (1923) and UT Medical Branch, Galveston, (1927). He interned at Hermann Hospital, Houston.

Dr Foster is survived by his daughters, Maradee Wendt, Boulder, Colo; Thala Stalls, Clovis, NM; Tina Schacht, Decatur, Ala; and Carol Ann Kerbel, Neshanic, NJ; two sisters; and eleven grandchildren.

R. R. Gleason, Jr, MD

Raleigh Rogerson Gleason, Jr, MD, Wharton, died Jan 24, 1978. Dr Gleason, 49, was a member of the Wharton-Jackson-Matagorda-Ft Bend County Medical Society.

A native of Shreveport, the psychiatrist was a graduate of Baylor University (1949) and the Louisiana State University School of Medicine (1956). He interned at the Confederate Memorial Medical Center, Shreveport (1956–1957) and held a residency at Letterman Army Medical Center, San Francisco (1959–1962).

Surviving Dr Gleason are his wife, Ann W. Gleason; sons, Raleigh R. Gleason, III, and Robert W. Gleason, all of Wharton.

V. Gordon, MD

A long-time Sealy physician, Virgil Gordon, died Jan 13, 1978. Dr Gordon, 88, was past president of the Austin-Grimes-Waller County Medical Society and an honorary member of Texas Medical Association.

A native of Campbellsburg, Ind, Dr Gordon attended public schools in Mitchell, Ind, and was graduated from Indiana University School of Medicine in 1912.

There are no survivors.

C. Hiett, MD

Carey Hiett, MD, 73, a Fort Worth obstetrician-gynecologist, died Feb 11, 1978. A member of Tarrant County Medical Society, Dr Hiett was past president of the Texas Association of Obstetricians and Gynecologists and the Dallas-Fort Worth Association of Obstetricians and Gynecologists.

He was a native of Kennedale, Tex, attended Baylor University, Waco, and was graduated from Baylor University College of Medicine in 1930. He interned at Bellevue Hospital Center, New York City, and Harris Hospital, Fort Worth.

Surviving are Dr Hiett's wife, Katie Farmer Hiett, Fort Worth; daughters, Anna Mitchell Pflugh, San Diego, Calif, and Karen Irvin, Houston; a sister; and four grandchildren.

R. Holt, MD

Russell Holt, MD, a long-time El Paso surgeon and general practitioner, died Jan 30, 1978. He was past president of the El Paso County Medical Society and Vice Councilor of District 1 of the Texas Medical Association.

Dr Holt was born in Palestine, Tex, attended Texas Tech University, and received his medical degree from the University of Colorado School of Medicine. He interned at the Robert B. Green Memorial Hospital, San Antonio, before moving to El Paso in 1934.

Surviving are his wife, Evalyn Foltz Holt, El Paso; daughter, Janice Holmes, Dallas; a brother; two sisters; and five grandchildren.

W. H. Joyce, MD

Walter Harris Joyce, MD, president of the Atascosa County Medical Society, died Dec 21, 1977. Dr Joyce, 66, had practiced in Lytle for more than 30 years.

A native of Gulfport, Miss, he was a graduate of St Mary's University, San Antonio, and The University of Texas Medical Branch, Galveston. He interned at Santa Rosa Medical Center, San Antonio.

Dr Joyce is survived by his wife, Helen Brown Joyce,

Lytle; sons, Walter H. Joyce, Jr, Lytle, and Richard B. Joyce, Markham, Tex; daughter, Margaret Ehman, Alice; two brothers; three sisters; and three grandchildren.

S. W. Mantzel, MD

Sherwood William Mantzel, MD, a retired Giddings physician, died July 17, 1977. Dr Mantzel, 68, was a member of the Bastrop-Lee County Medical Society.

A native of Bellville, Tex, he attended Baylor University and received his medical degree from Baylor University College of Medicine in 1934. His internship was at King's Daughters Hospital, Temple.

Surviving Dr Mantzel are his wife, Gerdine Sternberg Mantzel, Giddings; daughter, Loretta Smith, Austin; son, Sherwood Mantzel, Houston; and four grandsons.

H. L. McClanahan, MD

Henry Lane McClanahan, MD, 50, a Houston obstetrician-gynecologist, died Dec 18, 1977. He was a member of Harris County Medical Society.

A native of San Augustine, Tex, he was graduated from Stephen F. Austin State University and Baylor College of Medicine. His internship and residency were at Hermann Hospital, Houston.

Surviving are his wife, Dusty McClanahan, Houston; daughters, Linda Roberts, San Augustine, and Carroll McClanahan, Houston; sons, Lane McClanahan, Jr, and Kelly McClanahan, Houston; one brother and a granddaughter.

L. T. McKenna, MD

Lou Tomlinson McKenna, MD, 75, died July 6, 1977. A retired physician, Dr McKenna had been in general practice in Galveston since 1938. She was director of anesthesia at St Mary's Hospital, Galveston, from 1941 to 1947, and director of school health for the Galveston Independent School District from 1957 to 1971.

A native of Era, Tex, Dr McKenna graduated from UT Medical Branch, Galveston, in 1936, interned at Methodist Hospital, Houston, and served her residency at Woman's Hospital, Philadelphia.

Survivors include a sister and two brothers.

G. T. Moller, MD

Godfrey Turner Moller, MD, 69, Corpus Christi, died Jan 22, 1978. He was past president of the Nueces County Medical Society and an honorary member of Texas Medical Association.

Dr Moller was born in Hitchcock, Tex, and attended The University of Texas, Austin. In 1933 he was graduated from UT Medical Branch, Galveston. He served an internship and residency at Turner Urological Institute, Houston, and an internship at Denver General Hospital.

Survivors include his wife, Mrs G. T. Moller, Corpus Christi; sons, John Moller, McAllen, Tex, and Turner Moller, Jr, Corpus Christi; daughter, Mrs P. J. Graf, Reston, Va; two brothers; four grandchildren; and a number of nieces and nephews.

G. B. Moore, Jr, MD

George Barnard Moore, Jr, MD, San Antonio, died Feb 12, 1978. A member of Bexar County Medical Society, Dr Moore, 78, was past president of the San Antonio Eye, Ear, Nose and Throat Society.

Born in Columbus, Ga, Dr Moore was a 1922 graduate of The University of Texas, Austin, and a 1926 graduate of Vanderbilt University School of Medicine. He interned at The Station Hospital, Fort Sam Houston, San Antonio. He was a medical officer with the US Army from 1926 until his retirement as a colonel in 1945.

Dr Moore is survived by his wife, Marjorie Dickinson Moore, San Antonio; daughter, Marjorie Moore McKay, Houston; and one sister.

F. M. Posey, Jr, MD

Frank McNabb Posey, Jr, MD, a San Antonio obstetrician-gynecologist, died July 30, 1977. He was 63.

Dr Posey was born in Hondo, Tex, and attended The University of Texas, Austin. He received his medical degree from Tulane University School of Medicine in 1940. He served an internship at Gorgas Hospital, Ancon, Canal Zone. He served as secretary of the Bexar County Medical Society in 1952.

Survivors include his wife, Carolyn S. Posey, San Antonio; sons, Frank M. Posey, III, and Jules K. Posey, San Antonio, and Charles F. Posey, Arlington, Tex; mother; sister; niece; and six granddaughters.

F. H. Pratt, MD

Frank Hiram Pratt, MD, past president of the Nine Counties Medical Society, died March 9, 1978. Dr Pratt, 60, had practiced in Rocksprings for more than 30 years.

A native of Baird, Tex, he was a graduate of The University of Texas, Austin, and Baylor University College of Medicine. He interned at Robert B. Green Memorial Hospital, San Antonio. During 1945–1947, he served as a captain in the United States Air Force.

Survivors include Dr Pratt's wife, Elizabeth Odom Pratt, Rocksprings; daughters, Barbara Ann Schoolcraft, Kerrville, and Sally Forte, Baltimore, MD; and three grandchildren.

Hesiquio Rodriguez, MD

Hesiquio Rodriguez, MD, Harlingen, died Dec 12, 1977. He was 58.

Dr Rodriguez was born in McAllen, Tex, and was a graduate of The University of Texas, Austin, and The UT Medical Branch, Galveston. His internship was at St Louis City Hospital and his residency was at Malcolm Bliss Mental Health Center, St Louis.

Survivors include his wife, Annabel Alberts Rodriguez, Harlingen; sons, Hesiquio C. Rodriguez, Corpus Christi, and Charles D. Rodriguez, Austin; daughters, Suzanne Rodriguez and Rozanne Rodriguez, Harlingen; father; two sisters; a brother; and a number of nieces and nephews.

J. T. Rountree, MD

James Trabue Rountree, MD, 65, died Dec 19, 1977 in an automobile accident. He had been employed by the Texas Department of Mental Health and Mental Retardation for 21 years and at Rusk State Hospital for the past four years.

A native of Carthage, Tex, Dr Rountree was a graduate of Southern Methodist University and Baylor University College of Medicine, Dallas. His internship was at City Hospital, Dallas, and his residency was at the US Marine Hospital, Baltimore.

Dr Rountree is survived by his mother, Gladys Rountree, Dallas; sons, James T. Rountree, Jr, Richardson, Tex; William John Rountree, Houston; and Dr Paul Rountree, Little Rock, Ark; daughters, Mary Sue Pippen, Longview; Dorothy Cothrum, Mesquite; and Connie Saubier, Tempe, Ariz; and a brother.

B. L. Trotter, MD

Bobbie Lee Trotter, MD, 48, San Saba, died Dec 13, 1978. He was a member of the Brown-Mills-San Saba County Medical Society.

A native of San Saba, Tex, Dr Trotter attended Tarleton State College, Stephenville, and received a bachelor of arts degree from Baylor University in 1951. He was graduated from Baylor University College of Medicine in 1955, interned at John Peter Smith Hospital, Fort Worth, and held a residency at the Veterans Administration Hospital, Houston.

Survivors include his wife, Patsy Ruth Bates Trotter; son, Alan Leslie Trotter; daughter, Barbara Trotter, all of San Saba, and another daughter, Laura Lee Kirkwood, Stephenville.

R. B. Wolford, MD

Robert Banner Wolford, MD, 96, died Dec 21, 1977, in Arlington. Dr Wolford was an honorary member of the Dallas County Medical Society and the Texas Medical Association. He served as the Regional Medical Officer with the US Civil Service Commission in Dallas from 1945 until his retirement in 1957.

Born in Parker County, Tex, Dr Wolford received his medical degree from UT Southwestern University Medical School, Dallas, in 1909. He maintained a general practice at several different locations in Texas before joining the US Public Health Service in 1931.

Surviving Dr Wolford is his daughter, Roberta Patton, San Bruno, Calif.

RECENTLY DECEASED MEMBERS OF THE TEXAS MEDICAL ASSOCIATION

W.F. ARMSTRONG
Fort Worth, 1900–1978

W.G. BRYAN
Houston, 1882–1978

B.G. CAMPBELL
Wimberley, 1924–1978

R.K. DANIEL
Dallas, 1907–1978

D.R. FOSTER
1902–1977

R.R. GLEASON, JR
Wharton, 1928–1978

V. GORDON
Sealy, 1889–1978

C. HIETT
Fort Worth, 1904–1978

R. HOLT
El Paso, 1903–1978

W.H. JOYCE
Lytle, 1911–1977

S.W. MANTZEL
Giddings, 1908–1977

H.L. McCLANAHAN
Houston, 1927–1977

L.T. McKENNA
Galveston, 1901–1977

G.T. MOLLER
Corpus Christi, 1908–1978

G.B. MOORE, JR
San Antonio, 1899–1978

F.M. POSEY, JR
San Antonio, 1914–1977

F.H. PRATT
Rocksprings, 1917–1978

H. RODRIGUEZ
Harlingen, 1919–1977

J.T. ROUNTREE
Rusk, 1911–1977

B.L. TROTTER
San Saba, 1929–1978

R.B. WOLFORD
Dallas, 1881–1977

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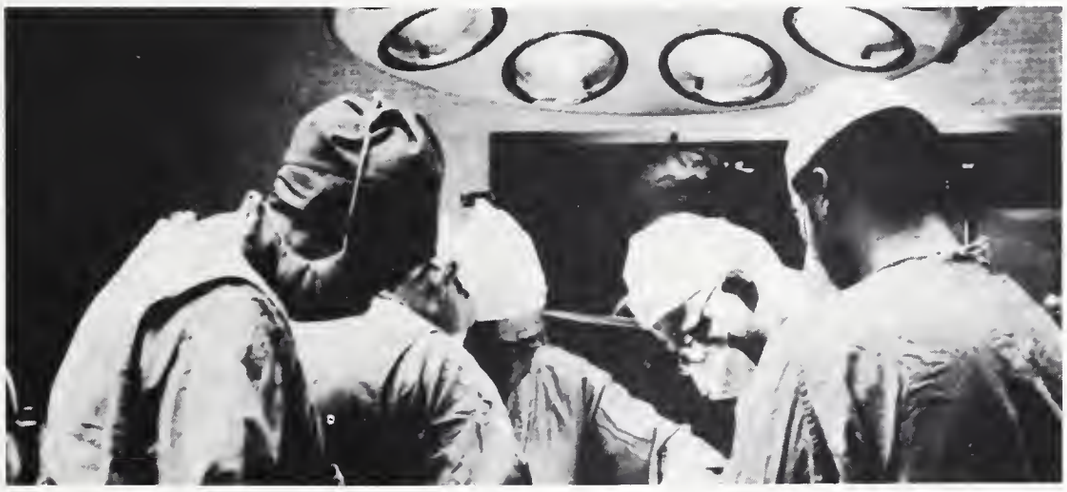

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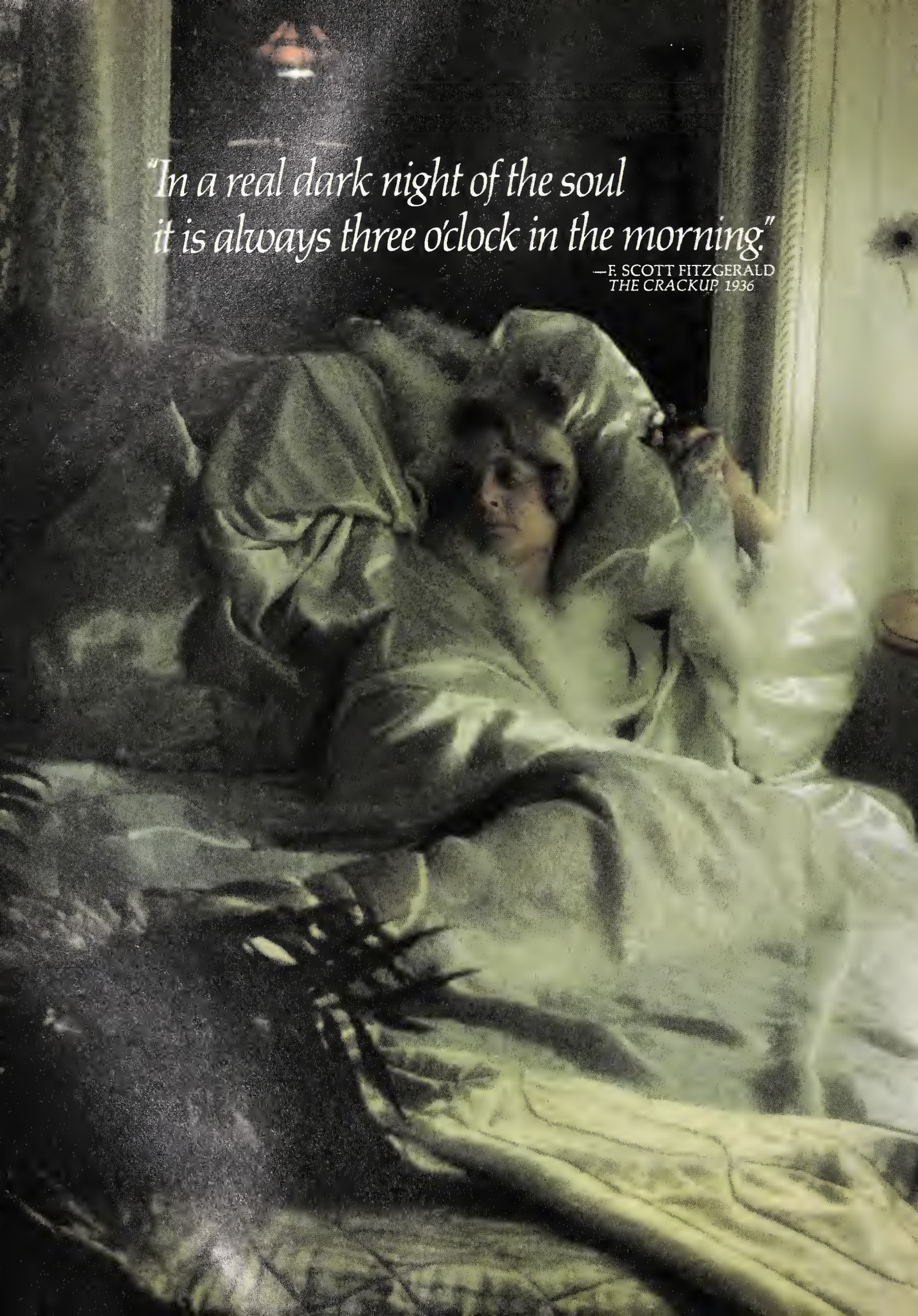
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1. Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131:1027-1029, 1974.

Brief Summary of Prescribing Information
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Indications—Relief of symptoms of anxiety and depression.

Contraindications—Glaucoma, tendency toward urinary retention, or hypersensitivity to doxepin.

Warnings—Adapin has not been evaluated for safety in pregnancy. No evidence of harm to the animal fetus has been shown in reproductive studies. There are no data concerning secretion in human milk, nor on effect in nursing infants.

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Dosage and Administration—In mild to moderate anxiety and/or depression: 25 mg t.i.d. Increase or decrease the dosage according to individual response. Daily dosage, up to 150 mg may be taken at bedtime without loss of effectiveness. Usual optimum daily dosage is 75 mg to 150 mg per day not to exceed 300 mg per day.

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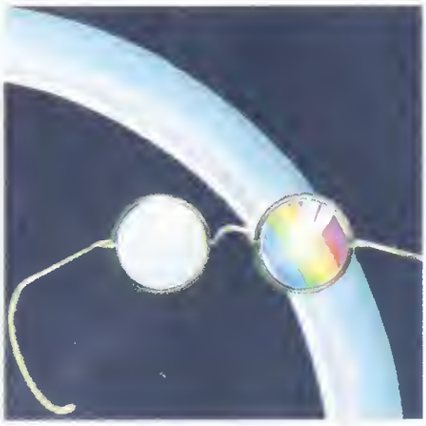

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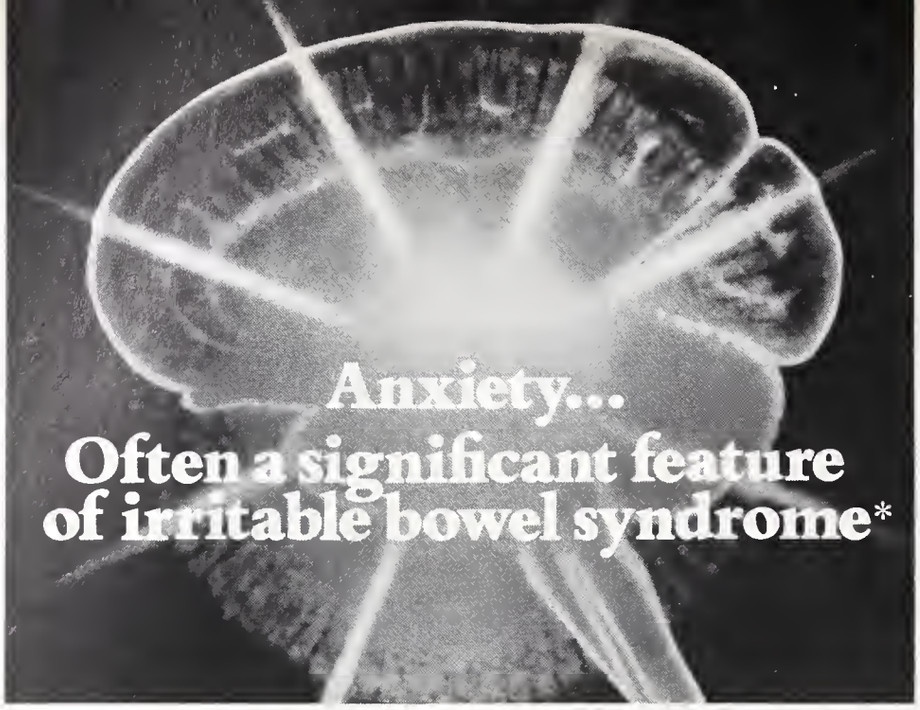

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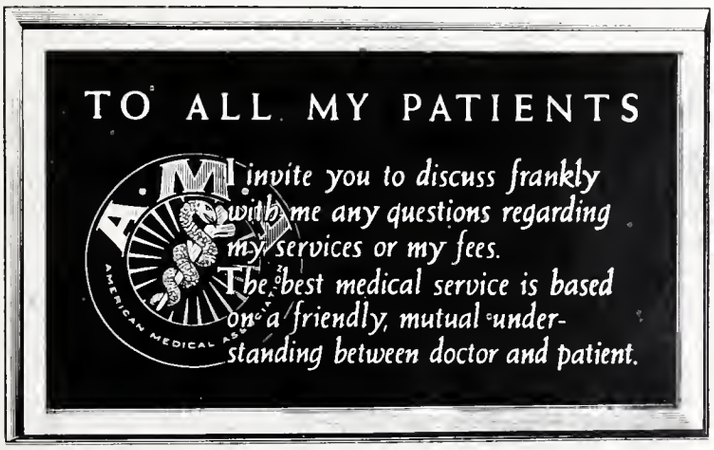

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INTERNIST/ENDOCRINOLOGIST: 35, fully trained, practicing subspecialty at USAF Medical Center. Desires hospital based or group practice in suburb of medium or large city. Prefer El Paso area or coast. Available November, CV on request. Robert A. Horvath, MD, 1372 Walnut Bend Court, Fairborn, Ohio 45234.

ANESTHESIOLOGIST—Board certified, experienced and university trained, would like to relocate in the State of Texas. Available within 4-8 weeks notice. Texas licensed. Please reply to Ad-805, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST, age 28, FMG (training approved by British Medical Council), FLEX, residency in university affiliated hospital, board eligible. Wishing to join group, partnership or hospital based practice. Experienced in CCU, treadmill, and ECHO. Willing to do little primary care if necessary. Please reply to AD-807, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

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GENERAL SURGEON: Board certified, 39, married, Asian Indian, FLEX. Texas license applied. Wants to relocate in Texas. Solo, associate or group practice. Excellent references. Available immediately. S. D. Rao, MD, 79-11 41st Avenue, Elmhurst, New York 11373; 212-478-2657.

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Immunization guidelines for normal children

1. Recommended schedule for active immunization of normal infants and children

2 mo	DTP[1]	TOPV[2a]
4 mo	DTP	TOPV
6 mo	DTP	TOPV[2b]
1 yr	Tuberculin Test[3]	
15 mo	Measles,[4] Rubella[4]	Mumps[4]
1½ yr	DTP	TOPV
4-6 yr	DTP	TOPV
14-16 yr	Td[5]—repeat every 10 years	

[1] DTP—diphtheria and tetanus toxoids combined with pertussis vaccine.
[2a] TOPV—trivalent oral poliovirus vaccine. This recommendation is suitable for breast-fed as well as bottle-fed infants.
[2b] A third dose of TOPV is optional but may be given in areas of high endemicity of poliomyelitis.
[3] Frequency of repeated tuberculin tests depends on risk of exposure of the child and on the prevalence of tuberculosis in the population group. For the pediatrician's office or out-patient clinic, an annual or biennial tuberculin test, unless local circumstances clearly indicate otherwise, is appropriate. The initial test should be done at the time of, or preceding, the measles immunization.
[4] May be given at 15 months as measles-rubella or measles-mumps-rubella combined vaccines.
[5] Td—combined tetanus and diphtheria toxoids (adult type) for those more than 6 years of age, in contrast to diphtheria and tetanus (DT) toxoids which contain a larger amount of diphtheria antigen. *Tetanus toxoid at time of injury*: For clean, minor wounds, no booster dose is needed by a fully immunized child unless more than 10 years have elapsed since the last dose. For contaminated wounds, a booster dose should be given if more than 5 years have elapsed since the last dose.

Concentration and Storage of Vaccines

Because the concentration of antigen varies in different products, the manufacturer's package insert should be consulted regarding the volume of individual doses of immunizing agents.

Because biologics are of varying stability, the manufacturer's recommendations for optimal storage conditions (eg, temperature, light) should be carefully followed. Failure to observe these precautions may significantly reduce the potency and effectiveness of the vaccines.

These guidelines for routine active immunization are endorsed by the TMA Subcommittee on Child and Adolescent Health. They are reprinted here with permission from the Committee on Infectious Diseases of the American Academy of Pediatrics.[1]

2. Primary immunization for children not immunized in early infancy.

Under 6 Years of Age[1]	
First visit	DTP, TOPV, Tuberculin Test
Interval after first visit:	
1 mo	Measles,[2] Mumps, Rubella
2 mo	DTP, TOPV
4 mo	TOPV,[3] DTP
10 to 16 mo or preschool	DTP, TOPV
Age 14-16 yr	Td-repeat every 10 yr
6 Years of Age and Over	
First visit	Td, TOPV, Tuberculin Test
Interval after first visit:	
1 mo	Measles, Mumps, Rubella
2 mo	Td, TOPV
8 to 14 mo	Td, TOPV
Age 14-16 yr	Td-repeat every 10 yr

[1] Physicians may choose to alter the sequence of these schedules if specific infections are prevalent at the time. For example, measles vaccine might be given on the first visit if an epidemic is under way in the community.
[2] Measles vaccine is not routinely given before 15 months of age. (However if measles vaccine is already given before 12 months, it should be repeated. If measles vaccine has already been given at 12-14 months, there is no need to repeat.)
[3] Optional. (Third dose of TOPV is recommended where polio is endemic.)

3. Interruption of Schedule

Interruption of the recommended schedule, with a delay between doses, does not interfere with the final immunity achieved. It is not necessary to start the series over again, regardless of the length of time elapsed.

4. Contraindications

General contraindications for vaccination include:

1. Acute febrile illness (minor infection not associated with fever is not a contraindication)
2. Immunosuppressive therapy, including radiation therapy, corticosteroids, antimetabolites, alkylating agents, and cytotoxic agents
3. Recent (within 8 weeks) gamma-globulin (ISG), plasma, or blood transfusions
4. Pregnancy (some live attenuated vaccines are contraindicated—measles, mumps, rubella, smallpox, and yellow fever). No special precautions need be exercised during immunizations of the children or household contacts of pregnant women; in particular, it is permissible to give rubella vaccine to the child of a pregnant woman.
5. Immunodeficiency disorders
6. Leukemia, lymphoma, or generalized malignancy
7. Simultaneous administration of another single, live vaccine (unless they have been shown to be effective when used together)
8. Prior allergic reaction to the same or a related vaccine. Children who are allergic to eggs, chickens, or ducks should not receive vaccines grown on chick or duck embryos; these include influenza, yellow fever, and duck embryo rabies vaccines (DEV). *However, these children can receive vaccines grown on chick or duck fibroblast tissue culture such as measles, rubella, and mumps*. Egg albumin and yolk components are essentially absent from the fibroblast cultures.

EDITORIALS

Update immunizations now to prevent childhood diseases

Routine, active immunization of normal infants and children is our most effective tool in the prevention of infectious disease. Although many vaccines are available, only diphtheria, tetanus, pertussis, poliomyelitis, measles, rubella, and mumps vaccines are recommended for routine use. Immunization with these seven vaccines is considered throughout Texas and the United States to be standard care. How are we doing?

In 1977, the US Department of Health, Education and Welfare estimated that out of 52 million American children under age 15 years, 20 million (38%) were not immunized against one or more of these seven preventable childhood diseases. HEW estimated that 19 million (37%) were not immunized against polio; 12 million (23%) were not immunized against measles and rubella; and 15 million (30%) had not completed a full course of DPT immunization. Yet, the HEW estimated that two thirds of these 20 million incompletely immunized children were in families that used private health care providers rather than public agencies.

Texas' statistics are better than national averages, but we can still improve. In the 0-4 age group, it is estimated that approximately 250,000 (20%) children are not immunized for DPT, poliomyelitis, measles, and rubella. However, only 30,000 to 90,000 (2%–3%) school-age children 5–18 years are unimmunized. Measles in Texas increased to 2,033 reported cases in 1977. This was an 8.6 times increase over reported measles cases in 1976, while only a 1.5 times increase occurred nationwide. Almost 55% of these measles cases in Texas last year occurred in school-age children.

Why do we still have large groups of unimmunized children when safe, effective, inexpensive vaccines are available through our offices and public agencies? Perhaps parents are unaware of the risks of these childhood diseases. We should remind them that in most children, these diseases are rather minor health problems. However, each one of them can cause life-long physical or mental impairments (paralysis, blindness, deafness, brain damage, and mental retardation) and death.

Perhaps physicians and the public have a false sense of security concerning these diseases. Certainly we don't see iron lungs anymore, and there were only 20 cases of poliomyelitis in the United States last year. Many physicians have never treated a case of poliomyelitis, diphtheria, or tetanus. Yet, this sense of security may be shaken when we recall the diphtheria outbreaks in Austin and San Antonio in 1968–1969, and as we treat the rubella-damaged children of the 1960s outbreaks and witness an eight-fold increase in measles.

What is being done? President Carter has budgeted $19 million for a 1978 nationwide immunization campaign, and the Texas Department of Health is taking part in this campaign. The national goal is to raise immunization levels above 90%, and to provide comprehensive immunization services for all children. On a statewide basis, the Texas Department of Health will conduct a survey "to establish base line data on the immunization status of children enrolled in public schools and licensed child care facilities."

What can we do as primary health care providers for children? First, we can see that the children we treat are adequately immunized. Now is an excellent time to do this. Most children are well now and are beginning to come in for minor illnesses, routine check-ups, camp physicals, and examinations for child-care facilities, school, athletics, and special education. Your office nurse, aide, or receptionist can be trained to examine the record for adequacy of immunizations, and make recommendations under the physician's guidance. After immunizations are completed, a permanent and complete immunization record should be part of the child's chart, and a copy of the record should be made for the parents. The parents should keep this copy as a permanent record and understand which immunizations are current and what will be needed next.

Understandably, some of your patients will not receive their immunizations in your office. You should direct the parents of these patients to the local city or county health facility to obtain needed immunizations. It would be helpful to explain to the parents which immunizations are required.

Extra effort must be made for those children who do not routinely go to any doctor's office or public clinics for shots. We must get these children into a health system of some kind. It may require new and different ideas from you, the local health department, and government health planners. Help from the Texas Department of Health is available. Press kits concerning immunization are available to the news media, and the American Academy of Pediatrics has 30-minute video cassettes about immuni-

zation which have been used successfully on television and in hospitals, schools, and health clinics. There is a 30-minute color film produced by the American Academy of Pediatrics, "A Gift, An Obligation," intended for the general public and stressing the importance of childhood immunizations. The film is available on a free loan basis from West Glen Films, 565 Fifth Ave, New York, NY 10017. The film also may be purchased for the at-cost price of $90 per print.

The Subcommittee on Child and Adolescent Health of the Texas Medical Association Committee on Maternal and Child Health endorses the national and state goals to raise the immunization level above 90%. To reach these goals, we endorse the recommendations for active immunization as stated by the Committee on Infectious Diseases, 1977, of the American Academy of Pediatrics[1] (see page 100).

The Subcommittee recommends that all TMA members make it their responsibility to see that susceptible children and adolescents receive appropriate immunizations.

Clinton E. Craven, MD, Austin,
TMA Subcommittee on Child and Adolescent Health.

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Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

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Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

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Please see reverse side for summary of product information.

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Disorders of the nervous system can make the patient mistrust his own senses and feel that his world is a disturbing and unreliable place. Articles on neurological disorders are found on pages 43, 48, 52, and 55.

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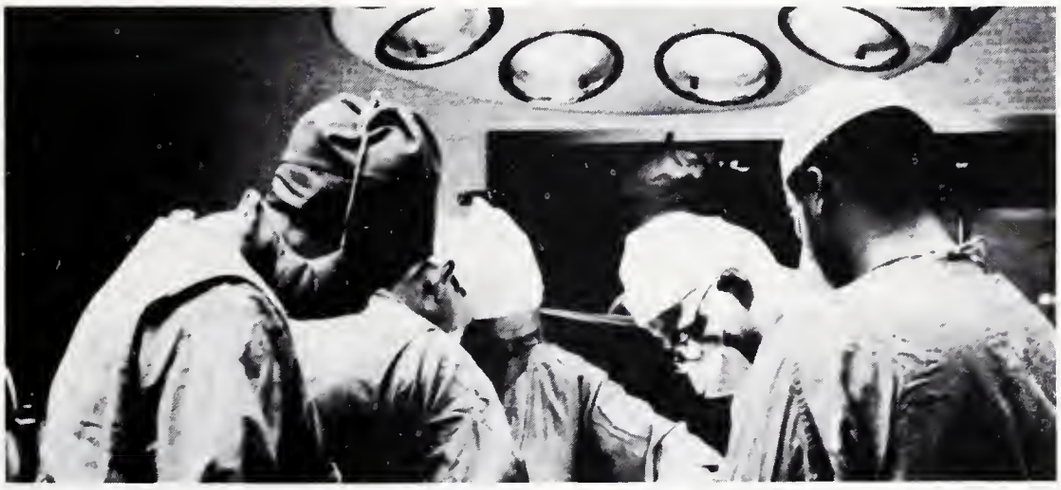

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Medical issues will highlight TMA fall conference Sept 24

Continuing medical education, voluntary cost containment, and scientific issues facing medicine will highlight the agenda at TMA's fall conference Saturday, Sept 24 at the Joe C. Thompson Conference Center in Austin.

The conference will include morning and afternoon programs. TMA boards, councils, and committees will also meet in Austin Sept 23, 24, and 25.

Other topics for the Saturday session include time management, assaults on professionalism, a wrap-up of legislation in the 95th Congress, and the confidentiality of medical records.

Registrants will be guests of TMA for luncheon Saturday. The conference is open to all TMA members. There will be an orientation program for new TMA members.

On Sunday TMA will sponsor five postgraduate courses for physicians at the Austin Marriott. Physicians will receive hour for hour continuing education credit for the courses. The courses include basic life support, acute cardiovascular emergencies; acid-base fluid and electrolyte balance; office dermatology; and human sexuality. Fee for courses will be $10 per course hour, plus an additional $5 for breakfast.

AMA delegates approve Texas resolutions

At its June meeting in St Louis, the American Medical Association House of Delegates adopted nine resolutions proposed by Texas and elected two Texas physicians to AMA offices.

Charles Max Cole, MD, Dallas, was reelected to a three-year term on the AMA Board of Trustees, and Stanley J. Dudrick, MD, Houston, was reelected to the AMA Council on Scientific Advancement.

The Texas delegation presented a record number of 24 resolutions to the AMA House of Delegates. Nine were adopted and three were approved in substitute form. In two instances, resolutions from other states were adopted in lieu of Texas' proposals. Ten resolutions were referred to the AMA Board of Trustees and the Judicial Council.

Most of the Texas resolutions had been passed by the Texas Medical Association's House of Delegates at TMA's Annual Session in San Antonio in May.

The AMA adopted a Texas resolution stressing the importance of *Current Procedural Terminology*, fourth edition, as a uniform procedural terminology. The AMA was directed to develop a program to obtain congressional and executive branch approval of CPT-IV.

In considering other Texas resolutions, the AMA House:

- ☐ Agreed to oppose the "gap-fill" method used in Medicare fee profiles; the AMA Board of Trustees will investigate the method, which has been established for use by the fiscal intermediary of both prevailing and customary charges to profile procedures by dollar amounts. The method is used when there is not adequate data in the physician's own profile on a specific procedure or service.
- ☐ Referred to the AMA Judicial Council a request that the AMA adopt a position that prescriptions for contact lenses and spectacle lenses are not equivalent. The American Association of Ophthalmologists presented a similar resolution asking for adoption of the statement.
- ☐ Referred to the AMA Board of Trustees a resolution asking Congress to require federal health care institutions to publish data in comprehensible and comparable terms on cost, length of stay by diagnosis, and other data.
- ☐ Adopted and referred a resolution asking the AMA to oppose proposed regulations setting forth the composition and selection of members of governing bodies of health systems agencies to the AMA Council on Legislation,

Mylie Durham, Jr, MD, (left) TMA president, Houston, and Charles Max Cole, MD, Dallas, who was reelected to the AMA Board of Trustees, discuss AMA business at the AMA convention in St Louis.

which is preparing comments on the proposed regulations published in the *Federal Register*.

- ☐ Approved a resolution asking the AMA to actively oppose regulations for the appropriateness of institutional health services by health systems agencies and state health planning and development agencies. The Texas delegation opposed the regulations on the basis that they restrict development of new services.
- ☐ Adopted a substitute resolution for a Texas resolution asking the AMA to continue to seek remedies for medical and health needs of cities in rural America, resulting from inadequate consideration of special problems created in health planning guidelines and from discrepancies in reimbursement to doctors and providers in rural areas.
- ☐ Created an Ad Hoc Committee on the Principles of Medical Ethics to consider the AMA's proposed changes in the principles. A Texas resolution urged the AMA House to support the Principles of Medical Ethics as presently written.
- ☐ Commended the AMA Board of Trustees for launching an extensive national advertising program designed to enhance public attitudes towards physicians and medical care.
- ☐ Commended the AMA Board of Trustees for its initiative in organizing and sponsoring six area meetings for physicians in locations throughout the country.
- ☐ Adopted memorial resolutions expressing sorrow at the loss of Milford O. Rouse, MD, who died March 14, 1978, in Dallas. Dr Rouse served as AMA president in 1967–68 and TMA president in 1956–57.

AMA delegates also considered nine Texas resolutions concerning the Report of the National Commission on the Cost of Medical Care. On the Texas resolutions the delegates:

- ☐ Adopted a resolution commending the AMA Board of Trustees for organizing the national commission.
- ☐ Endorsed the report's recommendation urging consumers to share in the cost of health care which they receive. The Texas resolution advocated the acceptance of coinsurance and deductibles in insurance policies.
- ☐ Referred four recommendations about sections of the commission's report concerning incentives to provide appropriate care, criteria and use of practice evaluation techniques, utilization in appropriate settings, and criteria for placement of expensive facilities and equipment to the AMA Board of Trustees.
- ☐ Adopted a policy statement that physicians should be encouraged to be knowledgeable about and consider the cost, charges, and reimbursement mechanisms for hospital services. The statement was prompted by a resolution presented by the Texas delegation and a recommendation by the AMA Board of Trustees.

M. T. Jenkins, MD, (left), Dallas, and Milton V. Davis, MD, Dallas, address the American Medical Association House of Delegates. Dr Jenkins served as chairman of the AMA reference committee on scientific-public health matters. Dr Davis is a member of the TMA delegation to the AMA.

☐ Adopted a resolution instructing the AMA to continue to augment the leadership role of the medical profession in developing and promoting health education programs to motivate Americans of all ages to maintain more healthful lifestyles and to assume more responsibility for the maintenance of personal health.

Members of the Texas delegation include Mylie E. Durham, Jr, MD, Houston; Merle W. Delmer, MD, San Antonio; James K. Peden, MD, Dallas; Haden E. McKay, Jr, MD, Humble; Braswell Locker, MD, Brownwood; G.V. Brindley, Jr, MD, Temple; Harvey Renger, MD, Hallettsville; Sam A. Nixon, MD, Houston; and J.E. Miller, MD, Dallas.

Texas delegates also include John R. Rainey, Jr, MD, Austin; Ed W. Schmidt, MD, Pecos; Charles W. Castle, MD, Liberty; Stanley E. Thompson, MD, Richmond; Charles B. Dryden, MD, Wichita Falls; John M. Smith, Jr, MD, San Antonio; Milton V. Davis, MD, Dallas; L. Rodney Rodgers, MD, Houston; Val F. Borum, MD, Fort Worth; and Ted H. Forsythe, MD, Lubbock. Specialty society delegates to the AMA from Texas include M.T. Jenkins, MD, Dallas; Whitney G. Sampson, MD, Houston, and Coleman Jacobson, MD, Dallas.

TMA committee begins 24-hour hot line for physicians

A 24-hour hot line and a brochure outlining specific signs of need for help are two ways the TMA Committee on Physician Health and Rehabilitation hopes to reach Texas physicians in need of treatment and/or rehabilitation. The committee hopes to encourage these physicians to accept appropriate treatment.

The committee's goal is to identify physicians with potentially significant problems before they reach crisis proportions. The committee hopes each physician can return to a productive, fulfilling life with a minimum of personal and professional disruption, said Leslie R. Ansley, MD, chairman of the committee.

Through the brochure, the committee hopes to reach all TMA members and make them aware of the program. The brochure, "Doctor . . . You May Need Our Help," outlines specific signs that indicate the need for assistance.

If a physician feels the need for help or feels that a colleague may need support in dealing with a practice he can contact the local county medical society committee or call the 24-hour hot line (512) 477-5575.

The hot line recording will ask the caller's name, phone number, and nature of the problem. The caller will receive a confidential telephone call from a physician who has a sincere interest in the health and well-being of fellow physicians.

For more information contact the Committee on Physician Health and Rehabilitation, Texas Medical Association, 1801 N Lamar Blvd, Austin, TX 78701.

TMA begins program to upgrade health in county jails

The Texas Medical Association is embarking on a statewide effort to upgrade health care in Texas county jails.

The association is actively seeking county jails willing to improve health care standards. "We hope that by working with local officials we can get rid of any instances of substandard conditions," said Mylie Durham Jr, MD, TMA president.

Last month, TMA began asking all Texas county sheriffs if they would be interested in developing their jails to meet voluntary health standards for minimum care set by the American Medical Association. In this phase of the pilot program, TMA will select five jails to assist. Those jails able to meet the standards will receive certification from the AMA.

The standards, developed by the AMA, reflect the definition of adequate medical care insisted upon by the courts, and serve as guidelines to physicians, jail authorities, and health care providers about the services and resources necessary to provide adequate services to inmates.

The standards include more than 80 requirements such as procedures for screening inmates for contagious disease, providing emergency medical care, and helping addicts withdraw from drugs or alcohol.

To help jails meet these standards, TMA will supply advice and technical assistance such as helping sheriffs find a jail doctor. By July 1979, TMA hopes to have helped prepare five jails for accreditation visits.

The AMA program for the accreditation of medical care and health services in jails began in 1975 with funds from the Law Enforcement Assistance Administration and the American Medical Association.

Through the combined efforts of six state medical associations, jail officials, physicians, health care providers, the AMA National Advisory Committee to Improve Medical Care and Health Services in Jails, and the AMA, 22 of 38 pilot jails were awarded accreditation as of Feb 18, 1978.

Through an award of accreditation, medical organizations thus can recognize that a jail has met nationally adopted standards. Additionally, participation in the accreditation process permits the jail to fully utilize the technical assistance and consultation resources of state and local medical societies and the AMA.

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The program works this way: A jail enters the accreditation process when an application from the person legally responsible for the jail is accepted by the AMA and the TMA.

During the applicant phase, the official will receive a self-evaluation questionnaire designed to identify the areas of jail compliance with the standards.

In all facets of the accreditation process, except as otherwise provided by law, a confidential relationship is established between the jail and the AMA and TMA.

For further information about TMA's program to upgrade medical care in Texas jails, contact Paul Gray, Department of Medical Service, Texas Medical Association, 1801 N Lamar Blvd, Austin, TX 78701.

Majority of Texas graduates enter primary care

More than half of this year's Texas medical school graduates plan to enter primary care studies.

Four hundred twelve of the 751 graduates plan to enter the fields of family practice, general internal medicine, obstetrics/gynecology, and pediatrics when they enter graduate medical education.

Of the 751 graduates, 607 are men and 144 are women.

The Medical School at The University of Texas Health Science Center at Houston conferred 63 MD degrees; the Medical School at The University of Texas Health Science Center at San Antonio conferred 118; Baylor College of Medicine conferred 181; The University of Texas Medical Branch at Galveston conferred 202; and Southwestern Medical School at The University of Texas Health Science Center at Dallas conferred 187.

Texas Tech University School of Medicine had no 1978 graduates. With the 1975 entering class, the school converted from a three-year to a four-year curriculum. In 1977 the last class of three-year students was graduated. In 1979 the first class of four-year students will graduate.

Graduates planning to enter primary care training include 34 from The University of Texas Health Science Center at Houston, 48 from The University of Texas Health Science Center at San Antonio, 117 from the Baylor College of Medicine; 109 from The University of Texas Medical Branch, and 104 from Southwestern Medical School in Dallas.

Harris society distributes media information packets

A new packet including information and a list of physician spokesmen in Houston has been distributed to the Houston area media by the Harris County Medical Society.

The list includes spokesmen for the Harris County Medical Society and specialty societies.

The packet also contains the Harris County Medical Society Code of Cooperation, a document drafted by the Harris County Medical Society in cooperation with representatives of the print and broadcast media, hospital spokespersons, and representatives of the medical schools and community.

The purpose of the code is to promote understanding and cooperative action between the health professions and those who report medical news.

MD DEGREES CONFERRED BY TEXAS MEDICAL SCHOOLS, 1978*

	Male graduates	Female graduates	Total graduates	Graduates entering primary care residencies for graduate medical education
Texas Tech University School of Medicine	†	†	†	†
Medical School, University of Texas Health Science Center at Houston	48	15	63	34
Medical School, University of Texas Health Science Center at San Antonio	93	25	118	48
Baylor College of Medicine	142	38	181	117
University of Texas Medical Branch	159	43	202	109
Southwestern Medical School, University of Texas Health Science Center at Dallas	164	23	187	104
	607	144	751	412

*Source: Texas medical schools

†Texas Tech had no 1978 graduates. With the 1975 entering class, the school converted from a three-year to a four-year curriculum. In 1977 the last class of three-year students was graduated. In 1979 the first class of four-year students will graduate

"Your Health Is In Your Hands" is a brochure designed by the TMA Communication Department and available for Texas physicians to distribute to their patients. The brochure includes tips on proper health habits. For more information about the brochures, contact the TMA Communication Department, TMA, 1801 N Lamar Blvd, Austin, TX 78701. Order forms for the brochures are on page 25.

TMA Executive Board considers trust report

A report on Texas resolutions and activities of the Texas delegation at the AMA's 1978 Annual Convention and a report on implementation of the Texas Medical Association Health Care Liability Claim Trust were considered by the TMA Executive Board at its July 15 meeting in Austin.

The trust will be physician directed and will employ a staff of experienced insurance professionals for administration of the program.

Board members also heard a report on liaison activities with professional associations in Texas, received an update on activities to achieve TMA's 1978 priorities, and heard a report on the committee to further liaison with specialty societies.

Board members reviewed TMA House of Delegates action on the Executive Board's Report on Organization and Structure. In May, the TMA House approved a substantial portion of the report, but voted to retain two policy boards and the present officer structure.

AMA creates new consumer relations department

The welfare of the medical care consumer will be the concern of the American Medical Association's new Department of Consumer Relations.

Its primary goal is to identify and resolve problems of concern to the medical care consumer, said William M. Cohan, director of the AMA's Division of Medical Practice.

The AMA will ask consumer groups to determine their special needs and wishes in medical care, and will provide consumers with information about the total health care system, ranging from alternative methods of medical care delivery to the implications of national health insurance.

The consumer's responsibilities in using health and medical care services properly to achieve and maintain good health will be stressed under the new program, Cohan said.

Under the new consumer relations program a concentrated effort will be made to assure wider distribution of health education materials and timely announcements of other AMA services.

TIMA elects 1978–79 officers

John H. Boyd, DO, was reelected to serve a one-year term as president of the Texas Institute for Medical Assessment (TIMA) at the group's June meeting.

Also reelected to one-year terms are Milton V. Davis, MD, vice president; Carmault B. Jackson, Jr, MD, secretary/treasurer; William F. Ross, MD, president elect; and Joseph T. Painter, MD, past president.

The TIMA executive committee and TIMA officers, board of directors, and advisory groups met again July 16 in Austin to consider the final enabling regulations and the proposed regulations to designate Texas a

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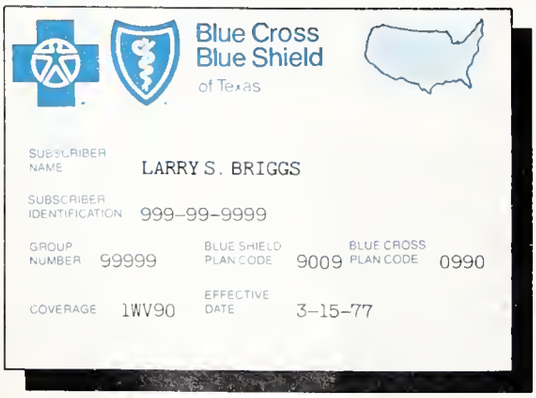

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single statewide professional standards review organization published in the July 5 *Federal Register*. Comment period for the proposed designation will last until Sept 5.

Since 1973, Texas health care providers, including the Texas Medical Association, have been working to have Texas designated as a single PSRO area.

Proposed rules published in the March 3 *Federal Register* would allow HEW Secretary Joseph Califano to designate statewide PSRO areas in states where no PSRO areas have been designated, and where he has evidence that physicians in the state favor a statewide area.

After the final regulations are published, TIMA officers will consider submitting TIMA's application for designation as the Texas PSRO.

When the PSRO assumes its full scope, it will review the professional activities of physicians and other health care providers in acute institutional care for services covered under the Social Security Act including Medicare, Medicaid, and maternal and child health programs.

TMA will sponsor county society executives program

The Texas Medical Association will sponsor the 1978 Conference of County Medical Society Executives Aug 4 and 5, 1978, at the Austin Marriott Hotel.

The conference will provide information on public relations and public service programs of the county medical society; the financial aspects of running a county medical society; membership programs; long-range planning; and TMA legislative activities.

Abortions increase by 16% in 1976 in the United States

A 16% increase over 1975, or 988,267 legal abortions in 1976 in the 50 states and the District of Columbia, were reported to the Center for Disease Control.

The nationwide abortion ratio increased by 15%, from 272 per 1,000 live births in 1975 to 312 per 1,000 live births in 1976.

A narrowing in the range of abortion ratios reported by the states and redistribution of legal abortions into states which had restrictive laws before 1973 continued. In fact, a higher percentage, 90%, of women obtained abortions in their home states than ever before.

The women obtaining legal abortions in 1976 were most often young, white, and unmarried. Sixty-five percent were under 25; 67% were white, while 33% were of black and other races. Seventy-five percent of the women were unmarried at the time of the procedure.

Forty-eight percent of the women had no living children.

Suction curettage remained the most widely used pro-

Characteristics of women receiving abortions in the United States, 1972–1976

Characteristics	Percent Distribution*				
	1972	1973	1974	1975	1976
Residence					
Abortion in-state	56 2	74 8	86 6	89 2	90 0
Abortion out-of-state	43 8	25 2	13 4	10.8	10 0
Age					
≤19	32 6	32.7	32 7	33 1	32 1
20-24	32 5	32.0	31 8	31 9	33 3
≥25	34 9	35 3	35 6	35 0	34 6
Race					
White	77 0	72.5	69 7	67 8	66 6
Black and others	23 0	27.5	30 3	32 2	33 4
Marital status					
Married	29 7	27 4	27 4	26.1	24 6
Unmarried	70 3	72 6	72 6	73 9	75 4
Number of living children					
0	49 4	48 6	47 8	47 1	47 7
1	18 2	18 8	19 6	20 2	20 7
2	13 3	14 2	14 8	15 5	15 4
3	8 7	8 7	8.7	8 7	8 3
4	5.0	4 8	4 5	4 4	4 1
≥5	5.4	4 9	4 5	4 2	3 8
Type of procedure					
Curettage	88 6	88 4	89 7	90 9	92 8
Suction	65 2	74 9	77 5	82 6	82 6
Sharp	23 4	13 5	12.3	8 4	10 2
Intrauterine instillation	10 4	10 4	7 8	6.2	6 0
Hysterotomy/ hysterectomy	0.6	0.7	0 6	0 4	0 2
Other	0 5	0 6	1 9	2 4	0 9
Weeks of gestation					
≤8	34 0	36 1	42 6	44 6	47 0
9-10	30.7	29 4	28 7	28 4	28 0
11-12	17.5	17.9	15 4	14 9	14 4
13-15	8 4	6 9	5 5	5 0	4 5
16-20	8 2	8 0	6.5	6 1	5 1
≥21	1 3	1 7	1 2	1 0	0 9

*Excludes abortions which were reported but for which no information is known

Source Center for Disease Control
Morbidity and Mortality Weekly Report

cedure for legal abortions, accounting for 83% of abortions performed in 1976.

The trend in declining abortion deaths continued into 1976. Twenty-five women died from abortions, including spontaneous abortions, in 1976, compared with 45 in 1975, 52 in 1974, 56 in 1973, and 89 in 1972.

Analysis of the 54,155 suction-curettage abortions performed at 12 weeks and under gestation reported through the Joint Program for the Study of Abortion/Center for Disease Control determined that the overall safety of abortions performed with either local anesthesia or general anesthesia appears to be similar. The rate of major complications was 3 per 1,000 procedures for local anesthesia and 3.5 per 1,000 for general anesthesia.

Blue Cross-Blue Shield begins cost control effort

A national cost control effort by the Blue Shield Association, in which payment will be made for certain procedures only when physicians can prove a clear need for them, will involve more than 30 medical procedures.

These procedures have been identified by the National Association of Blue Shield Plans in consultation with a number of medical specialty groups and health care profession organizations.

Most of the procedures fit into the categories of new procedures of unproven value, established procedures of questionable current usefulness, procedures which tend to be redundant when performed in combination with other procedures, and diagnostic procedures which are unlikely to provide physicians with additional information about a patient when used repeatedly.

The plan states that payment may still be made for any of the procedures, but first the medical need must be clearly justified in writing by the physician.

William E. Ryan, president of the Blue Shield Association, said that procedures will be covered only when physicians can prove a clear need for them, and will not affect the high quality of American medical care.

"The point of this program is to encourage medical professionals to think about the cost of the procedures they order," Ryan said.

In Texas, the Blue Shield plan has discontinued routine payment for the following procedures: bronchoscopy with injection of contrast medium; bronchoscopy with injection of radioactive substance; ligation of internal mammary arteries, unilateral; ligation of internal mammary arteries, bilateral; radical hermorrhoidectomy, Whitehead type, including removal of entire pile bearing area; omentopexy for establishing collateral circulation in portal obstruction; kidney decapsulation, unilateral; kidney decapsulation, bilateral; perirenal insufflation; nephropexy: fixation or suspension of kidney (independent procedure), unilateral; and circumcision, female.

Other procedures include hysterotomy, nonobstetrical, vaginal; supracervical hysterectomy; subtotal hysterectomy, with or without tubes and/or ovaries, one or both; uterine suspension; uterine suspension, with presacral sympathectomy; ligation of thyroid arteries (independent procedure); hypogastric or presacral neurectomy (independent procedure); basal metabolic rate; protein bound iodine; ballistocardiogram; icterus index; phonocardiogram with interpretation and report, and with indirect carotid artery tracing or similar study; angiocardiography, utilizing carbon dioxide method, supervision and interpretation only; angiocardiography, single plane, supervision and interpretation in conjunction with cineradiography; angiocardiography, multiplane, supervision and interpretation in conjunction with cineradiography; angiography, coronary, unilateral selective injection, supervision and interpretation only, single view unless emergency; and angiography, extremity, unilateral, supervision and interpretation only, single view unless emergency.

For more information write Blue Cross Blue Shield of Texas, Box 22001, Dallas, TX 75222.

TMA delegates will consider constitutional change

One change in the Texas Medical Association Constitution will be considered by TMA delegates at the November session of the House of Delegates in Austin.

The change, presented to delegates at the May session, would amend Article VII, Section 1, page 6, by deleting the word "Medical" from the name of the Council on Medical Legislation, to read as follows:

"Sec 1. The House of Delegates shall constitute the legislative body of the Association. The membership of the House of Delegates shall consist of (1) Delegates, elected in accordance with this Constitution and Bylaws, and ex officio; (2) the President, the President-Elect, the Vice President, the Immediate Past President, the Secretary, and the Treasurer; (3) Councilors; (4) Trustees; (5) the Speaker of the House of Delegates; (6) Vice-Speaker of the House of Delegates; (7) Texas delegates and alternate delegates to the American Medical Association; (8) three members elected at large to the Executive Board from members currently serving in the House of Delegates; (9) the members of the *Council on Legislation* and the several chairmen of the other respective councils; (10) the Delegate from the Resident Physician's Section; and (11) the Delegate from the Medical Student Section.

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Joint practice commission defines joint practice

A definition of joint or collaborative practice in hospitals, joint practice in primary care, and nursing staffs in hospitals are included in three statements adopted by the National Joint Practice Commission.

The commission was established in 1972 to make recommendations concerning the congruent roles of the physician and the nurse in providing quality health care to the American people.

In joint or collaborative practice in hospitals, the commission recommends joint determination of administrative and nonclinical actions bearing on patient care by nurses, physicians, and hospital administration. The commission believes that when necessary preparations have been made, nursing will be compensated according to the nature and duration of its services to patients; and further, that organized professional medical and nursing staffs of hospitals will exercise overall responsibility for the ethical conduct and professional practices of their members, and be accountable to the governing board of the hospital.

In the statement on joint practice in primary care, the commission says a commitment to the ideal of providing primary care in the full sense of the term establishes a framework within which the skills and perspectives of both medicine and nursing can most successfully be brought to bear on the health needs of patients and communities.

The National Joint Practice Commission believes the provision of primary care to the public is best accomplished by the joint efforts of specially educated nurses and physicians, and that the relationship should be that of colleagues in professional practice, regardless of individual employment status.

The scope of practice of the nurse and the physician should be jointly determined to their mutual satisfaction, and their practice should remain flexible and should be reviewed and changed as necessary.

On the business side, the commission believes that the joint practice relationship should be explained to all patients and that the business relationship of the nurse and the physician should be negotiated between them and stated in writing.

The commission recommends that organized professional nursing staffs of hospitals exercise responsibility for the quality of nursing care provided to patients, and for the ethical conduct and professional practices of its members, and be accountable to the governing board of the hospital.

For further information, write the National Joint Practice Commission, 35 E Wacker Dr, Suite 1990, Chicago, IL 60601.

New hospital will be built on Galveston campus

The Texas Department of Corrections Hospital will be built on The University of Texas Medical Branch at Galveston campus at an estimated total project cost of $40 million.

The new hospital will provide approximately 300,000 gross square feet of space for inmate patient beds, diagnostic and treatment facilities, ancillary services, and administrative areas. It is being designed to provide optimum health care delivery, teaching, and research opportunities with maximum security provisions.

The preliminary plans, already approved by the UT Board of Regents, also require approval of the Texas Health Facilities Commission.

Venereal disease increases in Texas in 1977

Data collected by the Venereal Disease Control Division of the Texas Department of Health indicates that 84,789 new cases of gonorrhea and 2,123 new cases of infectious syphilis, primary and secondary stages only, were reported in Texas in 1977.

Those figures represented a 3% increase in gonorrhea and a 4% increase in infectious syphilis over 1976 reports.

Statewide, gonorrhea infections have increased among the age groups of 30–34 by 17%, and 36–39 by 11%. There was a 6% decrease of gonorrhea in the 15–19 age group, and a 4% increase in ages 20–24. Evidently, school education and gonorrhea screening of young, at-risk women 15–24 are having a real impact, says the health department.

The department urges that efforts to control gonorrhea must be maintained for a true decrease in total morbidity. Efforts should be geared to include those individuals ages 25–39 in whom the increases are being reported.

Nationwide, provisional data from the Center for

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The effectiveness of Valium in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

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Case histories on file at Squibb Institute for Medical Research

See next page for brief summary

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CONTRAINDICATION: Topical steroids are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

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General—If irritation develops, discontinue the product and institute appropriate therapy. In presence of an infection, institute use of a suitable antibacterial or antifungal agent. If a favorable response does not occur promptly, discontinue the corticosteroid until the infection has been adequately controlled. If extensive areas are treated or if the occlusive technique is used, there will be increased systemic absorption of the corticosteroid and suitable precautions should be taken, particularly in children and infants. These preparations are not for ophthalmic use.

Usage in Pregnancy—Although topical steroids have not been reported to have an adverse effect on human pregnancy, the safety of their use in pregnant women has not been absolutely established. In laboratory animals, increases in incidence of fetal abnormalities have been associated with exposure of gestating females to topical corticosteroids—in some cases at rather low dosage levels. Therefore, drugs of this class should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time.

Occlusive Dressing Technique—The use of occlusive dressing increases the percutaneous absorption of corticosteroids. For patients with extensive lesions it may be preferable to use a sequential approach, occluding one portion of the body at a time. Keep the patient under close observation if treated with the occlusive technique over large areas and over a considerable period of time. Occasionally, a patient who has been on prolonged therapy, especially occlusive therapy, may develop symptoms of steroid withdrawal when the medication is stopped. Thermal homeostasis may be impaired if large areas of the body are covered. Discontinue use of the occlusive dressing if elevation of the body temperature occurs. Occasionally, a patient may develop a sensitivity reaction to a particular occlusive dressing material or adhesive and a substitute material may be necessary. If infection develops, discontinue the use of the occlusive dressing and institute appropriate antimicrobial therapy.

ADVERSE REACTIONS: The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning sensations, itching, irritation, dryness, folliculitis, hypertrichosis, acneform eruptions, perioral dermatitis, allergic contact dermatitis, hypopigmentation, maceration of the skin, secondary infection, skin atrophy, striae, and miliaria.

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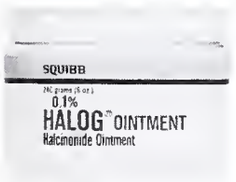

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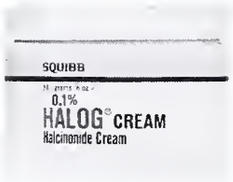
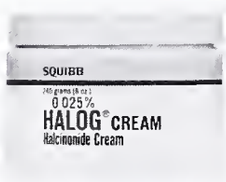


240 g

15 g 60 g

Halog Cream 0.025%

Halcinonide Cream 0.025%



240 g

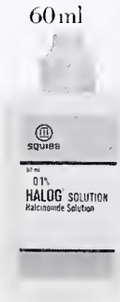
15 g 60 g

Halog Solution 0.1%

Halcinonide Solution 0.1%

20 ml

60 ml



Disease Control indicates that 991,676 new cases of gonorrhea were reported in 1977. Infectious syphilis cases, including primary and secondary stages only, decreased about 14%.

Despite decreases, tuberculosis remains threat

Annual tuberculosis case totals in Texas and nationwide have been declining steadily over the past several years.

In Texas, figures show a decline from 2,454 cases in 1976 to 2,326 cases in 1977. Some 30,000 new cases of tuberculosis were reported in the United States in 1977, compared with 32,497 in 1976.

Despite progress, the Texas Department of Health stresses the realistic threat tuberculosis continues to hold for this country. This viewpoint is based on the belief that a sizable reservoir of infected individuals remain within the population.

A number of variable factors contribute to the problem of the reservoir of infected individuals. One major contribution is related to the typical absence of overt symptoms. Another factor is associated with known failure of tuberculosis patients in complying with or completing prescribed treatment schedules.

In Texas, figures for 1976 and 1977 show the highest number of cases by age occurring in the 25–44 and the 45–64 age groups. The number of cases for 1976 within this age span was 1,476 with a case ratio of 60%. Figures for 1977 indicate 1,394 cases occurring with a case ratio of 59%. Compounded with the increased average life span, these age groups represent a large portion of the reservoir for the tubercle bacilli.

Institute urges increase in primary care physicians

Urging an increase in the number of physicians in primary care, a National Institute of Medicine report has recommended that third-party payers reimburse all physicians at the same payment level for the same primary care services.

"This change would assure that physicians in primary care discipline receive the same fees as other physicians for equivalent services," said the report. "Higher fees would be justified only for specialty services provided on physician referral."

The institute panel also proposed that all geographic differentials within a state in payment levels for physicians should be discontinued as an incentive to practice in rural, underserved areas.

The report, "A Manpower Policy for Primary Health Care," was prepared by a steering committee of the Division of Health Manpower and Resources Development.

Noting that the supply of physicians in the United States will increase more than 60% by 1990, the committee found "no reasons to continue to increase the number of medical students across the country. However, it believes that an increasing number of future physicians should be in primary care." The number of entrants to medical school should remain at the current annual level, the committee recommended.

The committee said "it is inclined to believe that most physicians should be primary care practitioners, because primary care includes the management of the great majority of problems presented by patients." Recommended was a substantial increase in the national goal for the percent of first-year residents in primary care fields, in the range of 60% to 70% while the current shortage exists.

Federal and state governments should continue to promote primary care partly by using financial incentives for the creation and support of primary care residency programs, the institute said.

JCAH adopts standards for medical laboratory services

The Board of Commissioners of the Joint Commission on Accreditation of Hospitals has adopted new standards for pathology and medical laboratory services.

The new pathology and medical laboratory services section will appear in the 1979 edition of the *Accreditation Manual for Hospitals* to be published in August 1978 and will be effective for accreditation decision purposes for surveys conducted after Jan 1, 1979.

Direction/supervision of pathology and medical laboratory services is more clearly defined, requiring adequate technical performance at all times, the JCAH says. Areas included in the new standards apply to laboratories providing histocompatibility testing, virology, parasitology, and electron microscopy. Requirements pertaining to the performance of autopsies have been significantly expanded.

The US Department of Health, Education, and Welfare,

which has recently adopted new Medicare regulations for clinical laboratories, views the newly revised JCAH standards as "a significant step forward toward justifying continued deemed status for the clinical laboratory component of the JCAH hospital accreditation program." The 1965 Social Security Act, which established Medicare, provided that hospitals accredited by JCAH are deemed to be in compliance with Medicare Conditions of Participation (except for utilization review and institutional planning requirements), and thus deemed to be eligible for federal reimbursement monies. Officials at DHEW have indicated that clinical laboratories in JCAH-accredited hospitals will continue to be accorded deemed status if implementation of the new standards is determined to be satisfactory.

Next month

In September, *Texas Medicine* will bring you articles on immunohemolytic anemia in children, anhydrous ammonia burn of the respiratory tract, laparoscopic tubal sterilization of unselected outpatients, pregnancy complicated by acute gastric volvulus, and primary leiomyosarcoma of the vagina.

San Antonio offers film festival/symposium

Rich documentary films, music, food, art exhibitions and discussions by eminent Canadian and United States physicians and scholars will be combined Sept 15–17 for a continuing education opportunity in San Antonio.

The Fourth Biennial International Film Festival/Symposium, sponsored by the psychiatry department of The University of Texas Health Science Center at San Antonio, will offer physicians continuing education credit.

Every two years, the department chooses one country as a focus for an intense experience designed to offer diverse perspectives on the healing arts.

The six half-day sessions will be filled with documentary and feature footage from the National Film Board of Canada and other sources.

More information is available by writing or calling International Film Festival/Symposium, Office of Continuing Education Services, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284, (512) 696-6295.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media*	1978 through 6/30	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	+16.8%	+38.0%	−23.1%	1.4%
Loomis-Sayles Mutual Fund	+ 0.5%	+25.3%	−18.2%	4.1%
Mercantile Bank Equity Fund	+ 2.2%	+44.0%	−28.9%	B
Mercantile Bank Fixed Income Fund	− 1.2%	+10.7%	− 8.2%	B
T Rowe Price Growth Stock Fund	+ 5.8%	+33.9%	−33.8%	2.1%
T Rowe Price New Income Fund	− 3.0%	+ 6.6%	N/A	7.9%
Stein Roe & Farnham Balanced Fund	+ 0.5%	+25.8%	−23.8%	3.6%
Standard & Poor 500 Stock Average	+ 0.5%	+38.8%	−19.4%	
Dow Jones Industrial Average	− 1.5%	+34.8%	−18.5%	

*Includes reinvested capital gains distributions.

A Mutual Fund performance includes reinvested capital gain distributions.

B Mercantile HR-10 Equity and Fixed Income Funds make no distributions. All earnings are retained in the respective funds.

MEDICAL NEWSMAKERS

THOMAS A. NICHOLAS, MD, former professor and chairperson of the department of family practice, Texas Tech University School of Medicine, has accepted the position of director of the Division of Education at the national headquarters of the American Academy of Family Physicians in Kansas City, Mo. Dr Nicholas is responsible for overseeing undergraduate education in medical schools and assisting in the development and ongoing evaluations of family practice residency programs in the United States.

LAWRENCE W. PATZKOWSKY, MD, Amarillo, has been appointed acting chairperson for the department of family practice at Texas Tech University School of Medicine.

The new chief of the medical service at the Audie Murphy Memorial Veterans Hospital, San Antonio, is ELLIOT WESER, MD. Dr Weser has served as head of the gastroenterology division of the UT Health Science Center at San Antonio since 1967.

ARTHUR C. BEALL, JR, MD, Houston, has been elected councilor for the State of Texas of the Southwestern Surgical Congress.

The University of Texas Board of Regents has announced the appointment of ROGER J. BULGER, MD, as president of The University of Texas Health Science Center at Houston. Dr Bulger has served as chancellor of the University of Massachusetts at Worcester and dean of the medical school there. He is a member of the American Society for Microbiology, the American Federation for Clinical Research, the American Society of Nephrology, the Infectious Diseases Society of America, and the Western Society for Clinical Research.

JAMES B. HOWELL, MD, Dallas, has been elected vice president of the American Dermatological Association.

The Award of Ho Din, top student honor at The University of Texas Southwestern Medical School, has been presented to PAUL R. VANATTA, MD, and STEVEN M. WALTHER, MD. Dr Vanatta will begin a pathology residency at Parkland Memorial Hospital, Dallas; Dr Walther will begin a residency at Children's Medical Center, Dallas.

ARTHUR L. MCELMURRY has been named the recipient of the Texas Hospital Association's 14th Annual Earl M. Collier Award for Distinguished Hospital Administration. McElmurry is president of Wadley Hospital, Texarkana.

Thomas A. Nicholas, MD

Lawrence Patzkowsky, MD

Elliot Weser, MD

Roger J. Bulger, MD

A. Bryan Spires, Jr, MD

Stanley Crawford, MD

Julian C. Barton, MD

Herman A. Barnett, MD

Melvyn H. Schreiber, MD

DONALD R. KLEIN, MD, Dallas, has been reelected secretary of the American Society of Aesthetic Plastic Surgery.

Recipients of the 1978 Distinguished Service Awards at M.D. Anderson Hospital and Tumor Institute are WILLIAM S. DERRICK, MD, former head of the department of anesthesiology; CLIFTON D. HOWE, MD, former head of the department of medicine and chief of the general medical service; and EDGAR C. WHITE, MD, former head of the department of surgery.

COLEMAN JACOBSON, MD, Dallas, has been elected president of the Dermatology Foundation, a national nonprofit health agency in Evanston, Ill. Dr Jacobson is clinical professor at Southwestern Medical School, visiting professor of dermatology at Baylor University College of Dentistry, and chief of the dermatology service at the Children's Medical Center. He is the second vice president of the Southern Medical Association, and a member of the South Central Dermatologic Congress and advisory board of the National Program for Dermatology.

Five Texas physicians have been honored with 1978 Ashbel Smith Distinguished Alumni Awards from The University of Texas Medical Branch at Galveston. Recipients of the awards are A. BRYAN SPIRES, JR, MD, secretary of the Texas State Board of Medical Examiners, Austin; STANLEY E. CRAWFORD, MD, pediatrics, dean of the medical school at The University of Texas Health Science Center at San Antonio; JULIAN C. BARTON, MD, internal medicine, San Antonio; MELVIN SCHREIBER, MD, professor and chairman of the UTMB department of radiology; and HERMAN A. BARNETT, MD, surgery, Houston, awarded posthumously.

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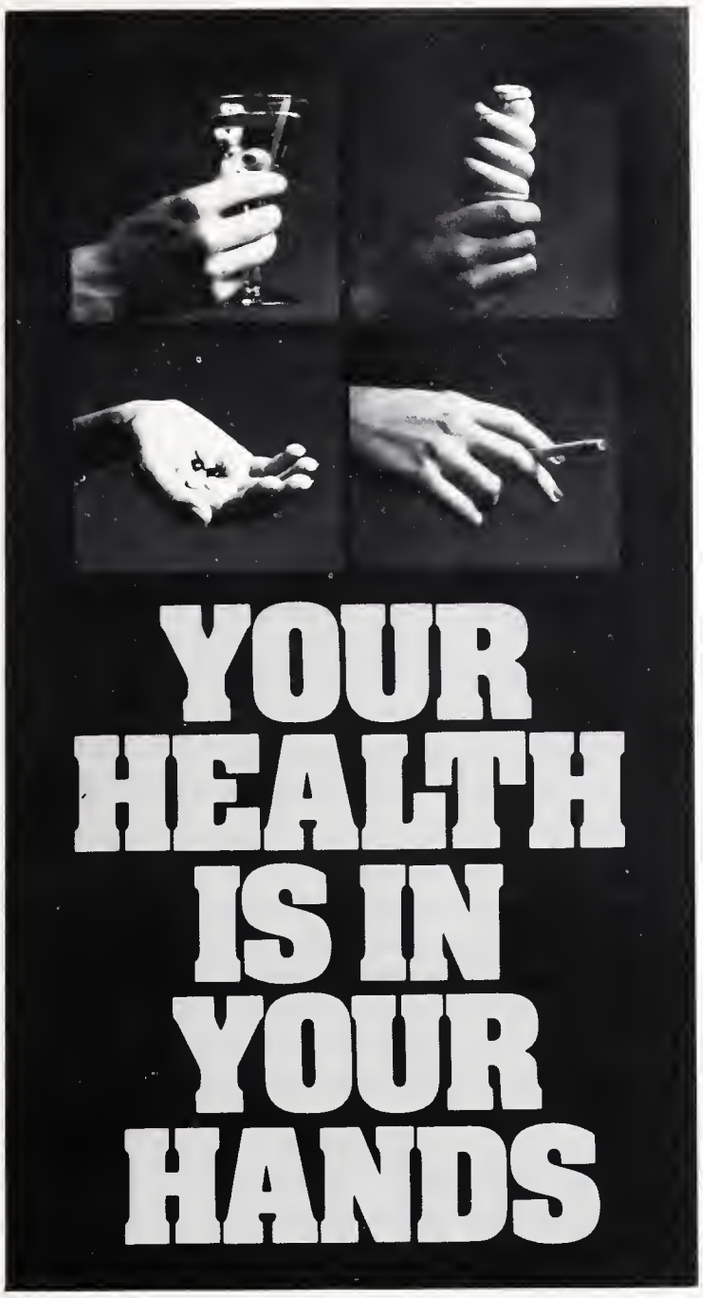

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CAPITAL COMMENTS

Editor's Note: "Capital Comments" highlights current items of interest relating to health matters in the US Congress, federal agencies, state legislatures, and Texas administrative agencies.

AUSTIN CONGRESSIONAL ELECTIONS The six winners in the Texas congressional run-off elections held in June for their party's nomination are: District 6—Phil Gramm (D-College Station); District 11—Marvin Leath (D-Marlin); District 14—Joe Wyatt, Jr (D-Bloomington) defeated incumbent member John Young, Corpus Christi; District 17—Charles Stenholm (D-Stanford); District 18—Mickey Leland (D-Houston); and District 19—George Bush, Jr (R-Midland).

AUSTIN SENATORIAL ELECTIONS In the State senatorial election run-offs the winners were District 26—Bob Vale, San Antonio over Phil Hardberger, and District 28—E. L. Short over Don Workman.

TEXAS HOUSE OF REPRESENTATIVES ELECTIONS In the Texas House of Representatives run-off races, the following won the nomination of their party: District 7B—Bo Crawford (D-Beaumont); District 21—Larry Wilkerson (D-Rosenberg); District 32A—Bobby Webber (D-Fort Worth); District 32B—Reby Cary (D-Fort Worth); District 32C—Lanny Hall (D-Fort Worth); District 33C—Sam Hudson (D-Dallas); District 33G—Clay Smothers (D-Dallas); District 50—Hector Uribe (D-Brownsville); District 58—Ernestine Glossbrenner (D-Alice); District 72D—Robert Valles (D-El Paso); District 73—Jay Gibson (D-Odessa); District 85—Al Edwards (D-Houston); and District 88L—El Franco Lee (D-Houston).

WASHINGTON PROFESSIONAL STANDARDS REVIEW ORGANIZATIONS HEW will request the Justice Department to appeal the ruling of a US district court holding a professional standards review organization (PSRO) is an agency of federal government and subject to requirements of the Freedom of Information Act. HEW also is reported to be seeking a legislative remedy exempting PSROs from freedom of information requirements. Acting for US Court for the District of Columbia, Judge Gerald Gesell ordered National Capital Medical Foundation to review requests for data to determine whether material may be withheld from public disclosure under the Freedom of Information Act. The judge did not order the PSRO to open the Medicare-Medicaid files. The requests for the information in the PSRO files came from the Public Citizens Health Research Group, a Ralph Nader organization. The Nader group filed suit after the PSRO refused to furnish data sought for comparison of physician services with standards established by PSRO. The suit was brought against both the PSRO and HEW which contended the PSROs are consultants not federal agencies. HEW has called the situation very serious as the ruling has significant implications for all 200 PSROs in existence.

WASHINGTON SURGICAL SECOND-OPINION PROGRAM HEW will inaugurate its surgical second-opinion program this summer. The promotional campaign to encourage patients, especially Medicare and Medicaid patients, to obtain a second opinion before deciding on surgery will include 60-second television announcements, four-to-five-minute radio dramas, and 5 million leaflets to be enclosed with social security checks in selected areas. A national toll-free hot line will also be set up. HEW plans to spend $460,000 for the leaflets, $25,000 for the television and radio promotion, and $130,000 a year for the hot line.

WASHINGTON SUNSET ACT OF 1977 Congress should undertake a broad review of regulatory agencies and programs "to untangle the bureaucratic web which appears to be trapping every American citizen," the AMA told the Senate Committee on Rules and Administration. Commenting in support of the concept of the proposed Sunset Act of 1977 (S2), which would subject all federal programs to review and budget reauthorization at least once every six years, the AMA also urged consideration of the changes suggested in the AMA draft bill on rulemaking reform (HR 5633). "We believe," the AMA said, "that a coordinated and comprehensive program to oversee the activities of the regulatory agencies and programs is long overdue and we encourage you to consider appropriate legislation to that end."

WASHINGTON HOME DIALYSIS The US Senate has passed and sent to the White House legislation to encourage renal patients to employ home dialysis or have kidney transplant operations. The legislation is intended to put the medical program on a more cost-effective basis by encouraging money-saving procedures, including the increased use of self-dialysis and kidney transplant operations and reimbursement methods that encourage economy in the delivery of services.

WASHINGTON LAWYER'S ADVERTISING Advertising by lawyers isn't spreading widely, according to a survey by Kane Parsons and Associates, New York. The firm, which conducted the survey for the American Bar Association, says that despite the Supreme Court's 1977 ruling permitting ads by attorneys, only 3% of lawyers have

advertised in the past year and 89% of those polled said they had no plans to advertise.

WASHINGTON TAX EXEMPTIONS A new Internal Revenue Service ruling provides that tax exempt organizations engaged in voter education activities will be examined on a case by case basis to determine whether their particular program violates the conditions under which the US government granted their tax exemptions. At issue is a section of the Internal Revenue Code which prohibits groups with tax exemptions from doing any political campaigning for any candidate for public office.

WASHINGTON PUBLIC FINANCING OF ELECTIONS With 85% of the 1977 income tax returns processed, Americans who oppose the use of tax dollars for presidential campaigns are outnumbering those who favor it by nearly 2 to 1. Thus far, 45.8% of the returns received said no while 27.9% said yes. Each year the number of Americans who do not check either box decreases. This year it is down to 26.3%. Undoubtedly, public financing opponents will use the apparent growth in taxpayer opposition to urge colleagues who are undecided on the question to vote against extending it to cover House general elections.

AUSTIN CORPORATE CONTRIBUTIONS Texas Attorney General John Hill has issued an opinion in response to a question of whether a corporation may make contributions and expenditures to aid or defeat the passage of a municipal bond election. The Attorney General said the US Supreme Court recently construed a very similar Massachusetts statute to that of Texas in *First National Bank of Boston v Bellotti*. In light of that decision, the Attorney General said it was clear that the Texas provision which prohibits corporate contributions "for the purpose of aiding or defeating the approval of any measure submitted to a vote of the people of this state or any subdivision thereof" was unconstitutional. The Attorney General said this determination implies no comparable right in the quite different context of participation in a political campaign for an election to public office.

NEW YORK HUGE MALPRACTICE AWARDS Ann Tuccillo, 51, who entered a New York hospital suffering from hives, has been awarded $1.5 million malpractice award by jury hearing case in New York State Supreme Court. The plaintiff entered the hospital in 1969 and left paralyzed from the neck down. The trial created a new legal problem by calling on the jury to apportion the damages. Still a bigger malpractice award came recently in Massachusetts where a jury of seven men and five women in Norfork County Superior Court awarded $4.5 million to Edward Rehill, Jr, father of 15-year-old Laurie Rehill who lost one kidney and whose other kidney no longer functions. Damages were awarded in a suit brought against the pediatrician who treated the girl from birth until 1972. Of the award, $4 million was in damages and $500,000 was for continuing medical treatment until she reaches 18 years of age. The manager of the Joint Underwriting Association which provides malpractice insurance to Massachusetts physicians said he did not recall any previous case in 20 years where the award exceeded $1 million.

WASHINGTON FTC OPHTHALMIC RULING The AMA has petitioned the federal district court in Washington DC for judicial review of the recently issued trade regulation rule on the provision of eyeglasses, contact lenses, and eye examinations. In its petition, the AMA questioned the authority of the FTC to issue trade regulations that preempt constitutional state laws and ethical standards of private associations without regard to the reasonableness of any particular standards. The FTC rule requires that consumers be provided with a copy of a written prescription for eyeglasses or contact lenses on request. In commenting on the petition, James Sammons, MD, AMA executive vice president, said, "The issue is whether an executive federal agency can substitute its judgment as to what is unfair competition for that validly exercised by state legislatures." Dr Sammons said the AMA has a long standing position that the patient is entitled to a copy of his or her prescription and is entitled to have the prescription filled wherever he or she chooses.

WISCONSIN OPTOMETRIST DRUG AUTHORIZATION A 1978 Wisconsin law permits optometrists who have successfully completed 60 classroom hours of study in general and clinical pharmacology and successfully passed an examination in pharmacology to use topical, ocular, diagnostic, and pharmaceutical agents in their practice of optometry. Optometrists desiring to use such drugs must have an approved plan which includes steps for the referral of patients who experience adverse reactions from such agents to appropriate medical services. The law also provides "if, during the course of examining

a person, an optometrist determines the possibility of the existence of a pathological condition, the optometrist shall so advise the person and shall refer to an appropriate medical specialist for further evaluation."

CALIFORNIA LIABILITY COSTS INCREASE The number of malpractice actions is decreasing in California, but physicians and their insurors are paying more for the case they lose, according to the State Bureau of Medical Statistics. California physicians and their insurors paid $37.5 million last year in 691 successful malpractice claims filed against them. The number of successful claims was down from the 773 recorded since 1976 but the dollar loss was up 16% from the $32.3 million paid out in malpractice actions during 1976.

WASHINGTON MEDICARE NAMES The AMA has been granted a request for a temporary restraining order against HEW Sec Joseph Califano. The order would prevent Califano from making public a list identifying each physician who provided services under Medicare and the amount of Medicare payments purported generated by the physician in 1977 to beneficiaries of the Medicare program. The AMA said publication of the list would invade the constitutionally and statutorily recognized interest of each physician in the confidentiality of information relating to personal income.

WASHINGTON HOSPITAL-RELATED PHYSICIANS The Federal Trade Commission, already moving deep into health care economics, has begun an investigation of the financial arrangements between hospitals and hospital-based physicians such as anesthesiologists, pathologists, and radiologists. FTC investigators have been quietly gathering samples of contracts between these specialists and hospitals and have been looking into the payment practices of private insurors.

WASHINGTON MD SPECIALIZATION Too many physicians are entering medical specialties and not enough are being trained as primary care doctors, according to a congressional study. Little is being done in the United States to match the training of its future physicians to the medical needs of the country, said the study by the General Accounting Office, the watchdog agency accountable to Congress. The GAO said many professional medical organizations believe their main responsibility is to train quality physicians, rather than to be concerned with how many students enter certain specialty fields.

WASHINGTON LAWYERS' SOLICITATION The US Supreme Court has ruled unanimously that a lawyer generally cannot solicit business by personally contacting clients. But, by a seven to one vote, the court said an exception may be granted in cases where attorneys represent nonprofit organizations that engage in lawsuits as a "form of political expression."

WASHINGTON FEDERAL ELECTION COMMISSION The six-member Federal Election Commission has selected Joan D. Aikens, Republican, to succeed Thomas E. Harris, Democrat, as chairman and Robert O. Tiernan, Democrat, to replace Aikens as vice chairman. Aikens, 49, was vice president of a public relations firm in Pennsylvania when appointed to the FEC in 1974 by the then Senate minority leader Hugh Scott (R-Penn). She has been active in the Pennsylvania Republican party affairs for more than a decade. In contrast to Harris' union orientation, Aikens has advocated a wider role for business and political fund raising. Tiernan, 49, represented Rhode Island's second district in the House of Representatives for eight years until 1974. Both Aikens and Tiernan end their six-year FEC terms in 1981.

WASHINGTON NATIONAL HEALTH INSURANCE President Carter has shifted his position on national health insurance and is determined to make the issue a major part of domestic policy. The President's decision is in partial response to campaign pledges and efforts to maintain closer ties with organized labor in the liberal community. The decision is also seen as a response to polls showing Sen Edward Kennedy (D-Mass) leading the President in popularity. While no legislation is possible this year, President Carter is expected to send up national health insurance proposals soon.

WASHINGTON HEALTH CARE SPENDING Health care spending in the United States in fiscal 1977 continued to increase at a greater rate than the Gross National Product to a total of $163 billion, according to HEW's Health Care Financing Administration. The total, which comes to $737 for each person in the nation, represents a 12% increase over the previous 12 months.

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MEDICINE AND THE LAW

MEDICAL RECORDS: WHAT ARE THEY AND HOW LONG SHOULD THEY BE KEPT?

There is no statutory law that defines a medical record or requires the maintenance of such record. Physicians often ask what documents or items should be included as a medical record, how long each record should be kept, and for what purpose.

What is a medical record?

A medical record is the compilation of the pertinent facts of the patient's life history, illnesses, and treatment. In a larger sense, the medical record is a compilation of scientific data coordinated into a document and available for various uses, personal and impersonal, to serve the patient, physician, institution where the patient received treatment, science of medicine, and society.

Medical records are an important tool in medical practice. They serve as a basis for planning patient care. The records provide a means of communication between the attending physician and other physicians and professional groups contributing to the patient's care. They furnish documentary evidence of the cause of the patient's illness and treatment, and serve as a basis for review and study of the medical care given.

The medical records should contain all items which together would describe and document the physician's treatment of a patient. The record includes the medical history, physician notes, laboratory notes, and other like documents. The records also should include copies of reports made to insurance companies, original consent forms executed by the patient, copies or notations on all drugs prescribed, x-ray film, tracings, and other documents of the patient's diagnosis and treatment.

The physician should remember that sketchy, incomplete, and unintelligible medical records may result in a sketchy, incomplete, and unintelligible defense should a physician be sued for medical malpractice and required to rebut allegations of negligence.

Why should records be kept?

In many instances, a patient must rely on his other physician and medical records to establish the fact that he or she did receive medical care and treatment, and that he or she had the services of a qualified physician. Without the records, the physician who rendered the care would be unable to assist the patient. In the best interest of the patient, the physician should not indiscriminately dispose of records. The physician should consider the type of practice and the possible needs of the patients in relation to medical records.

Perhaps the chief reason a physician would want to keep medical records is their defense value in malpractice litigation; for example, records can be used to prove the nonmeritorious nature of the plaintiff's allegations. For this reason, it is vitally important for the physician to maintain good medical records.

These records are used in establishing malpractice, and they may be the principal or only means of disproving a lack of due care. Since these records are important, a physician should keep them long enough for protection in case a medical malpractice suit is filed.

How long should records be kept?

The statute of limitations in Texas is one of the principal factors to be considered in connection with preservation of medical records. At the end of the time period covered by the statute of limitations, no legal action can be maintained. The purpose of the statute is not to defeat legal claims, but to require notice of claims within reasonable time and to guard against the obligatory defense of unfounded and belated suits, an unfair hardship.

To insure that the time for the statute of limitations has passed, medical records should be kept beyond the time period set by the Texas Legislature.

Before June 1975, medical malpractice cases were governed by the general two-year statute of limitations.[1] This meant that a suit must be filed within two years after the cause of action. Normally, where treatment is given or surgery is performed, a cause of action accrues immediately if proper care is not exercised by the attending physician.

Before June 1975, the Supreme Court of Texas had generally failed to recognize the discovery rule except in limited circumstances. The rule states that, in lieu of the time of the alleged incident, the statute of limitations begins to run when the patient knows, or in the exercise of ordinary care should have known, of the condition or disease which the physician allegedly failed to properly treat.

The Supreme Court of Texas has extended the discovery rule in cases of foreign objects left in the patient or unsuccessful vasectomy operations. In fraudulent concealment cases, a result similar to the discovery rule is reached and a physician will be stopped from relying on the defense of limitations until the right of action is, or in the exercise of reasonable diligence should be, discovered.

Other states and some intermediate Texas appellate courts have made more extensive use of the discovery rule to extend the statute of limitations.

Before June 1975, the two-year statute of limitations had two major exceptions. The statute of limitations ended on minors two years after they attained majority, which in Texas is 18 years of age, and the statute of

limitations ended two years after a person under legal disability regained legal capabilities.

Recognizing the problem that the discovery rule creates in medical malpractice cases, the Texas Legislature passed new legislation effective June 3, 1975. For those physicians covered by medical professional liability insurance, the statute of limitations was two years from the date of the alleged act, omission, or negligence. An exception was made for minors under age six years who would have until their eighth birthday to file, or have filed on their behalf, such claims. No exception was continued for those persons mentally incapacitated.[2]

On Aug 29, 1977[3], the effective date of HB 1048, a new permanent statute of limitations for medical professional liability claims went into effect. That statute states that, "Notwithstanding any other law, no health care liability claim may be commenced unless the action is filed within 2 years from the occurrence of the breach or tort or from the date the medical or health care treatment that is the subject of the claim or the hospitalization for which the claim is made is completed; provided that minors under the age of 12 years shall have until their 14th birthday in which to file, or have filed on their behalf, the claim. Except as herein provided, this subchapter applies to all persons regardless of minority or other legal disability."

Recommended time to retain medical records

Where no surgery has been performed, a physician's medical records on adults seen before June 3, 1975 should be retained for at least three years from the last treatment date. Where surgery has been performed, records should be retained for ten years from the operation unless the patient dies sooner. If the patient dies, the records should be maintained for three years after the death unless the time frame has elapsed prior to death.

If the plaintiff can affirmatively prove fraudulent concealment of the facts by the physician, the statute of limitations may not bar the malpractice action until two years after the date the fraudulent concealment was discovered, or should have been discovered, depending on the facts of the situation.

For patients seen after June 3, 1975, where the physician had medical professional liability insurance, records for adults should be kept for three years after the last date the patient was seen. The same schedule is recommended for adult patients seen after Aug 29, 1977.

Records of minor nonsurgery patients seen before June 1975 should be kept for five years after the patient reaches age 18. Surgery patients' records should be retained for ten years after the patient's 18th birthday.

Records of minor patients seen from June 3, 1975, through Aug 29, 1977, should be kept until five years after the child attains the age of 8 years.

Records of minor patients seen since Aug 29, 1977, should be kept until five years after the child's 12th birthday. After that date, the recommendations for adults apply. The same warning applies to minors as to adults regarding fraudulent concealment.

Medical records for mentally incompetent patients seen before June 3, 1975, should be kept for extended periods because the consent for such treatment or surgery is often an unresolved matter. While these patients are alive, medical records should be kept indefinitely since the statute of limitations may never be stopped.

Records of mentally incompetent patients seen after June 1975, for physicians with professional liability insurance, should be treated as other adults or minors as the case may be.

Conclusion

Medical records are extremely important. One major reason for retention is to provide the best defense for the physician in an alleged malpractice suit. The medical records may be used to prove the nonmeritorious nature of the allegations made by the plaintiff-patient. Records should be kept longer than the time set forth in the statute of limitations.

Because of the different time limitations, careful analysis should be made of the age, type of patient, type of practice, and other factors for proper time to retain medical records.

Ace Pickens
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

[1] Tex Rev Civ Stat Ann art 5526.
[2] VATS Insurance Code, art 5.82.
[3] VATS art 4590i; subchapter J, sec 10.01.

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In the Film Library

Basic Science Aspects of Perinatal Medicine, audiorecording by American College of Obstetricians and Gynecologists, produced by Audio-Digest Foundation. Glendale, Calif, Audio-Digest, 1977.
Control of uterine blood flow, placental blood gas transfer, fetal nutrition, antepartum and intrapartum fetal monitoring; diagnosis and therapy of diabetes, hypertension, renal disease in pregnancy.

Clinical Electrocardiography, Part I: Common Electrocardiographic Abnormalities, slide presentation by Chung EK. New York, Medcom, 1972.
Principles of electrocardiographic analysis, common abnormalities, including diagnostic analysis of chamber enlargement, myocardial infarction, pericarditis, pulmonary embolism, bundle branch block, effect of electrolyte imbalance.

Clinical Electrocardiography, Part II: Common Cardiac Arrhythmias, slide presentation by Chung EK. New York, Medcom, 1972.
Common arrhythmias, including those related to artificial pacemakers, Wolff-Parkinson-White syndrome. General considerations of conduction system.

Clinical Electrocardiography, Part III: Complex Cardiac Arrhythmias, slide presentation by Chung EK. New York, Medcom, 1972.
Electrocardiographic tracings of various complex arrhythmias.

Clinical Electrocardiography, Part IV: Digitalis-induced Arrhythmias, slide presentation by Chung EK. New York, Medcom, 1972.
Principles, indications, contraindications of digitalization.

Clinical Electrocardiography, Part V: Cardiac Arrhythmias—Differential Diagnosis, slide presentation by Chung EK. New York, Medcom, 1974.
Differentiation of supraventricular tachyarrhythmias with wide QRS complexes from ventricular tachyarrhythmias.

**Member, Texas Medical Association*

MEETINGS

CURRENT NATIONAL MEETINGS

ASPEN MUSHROOM CONFERENCE. The Fifth Annual Aspen Mushroom Conference will be held Aug 13–18 at the Wildwood Inn, Snowmass-at-Aspen, Colo. The conference is designed for physicians, scientists, amateur and professional mycologists, and those interested in the identification and the toxic and hallucinogenic properties of wild mushrooms. The program is structured for the beginner as well as the advanced student offering independent teaching sessions for each group. Special guest speaker Alexander H. Smith, PhD, will lecture on "Collecting Wild Mushrooms in the Aspen Area." The conference is sponsored by Beth Israel Hospital, Denver; Rocky Mountain Poison Center, Denver; and Colorado Mountain College, Glenwood Springs, and meets the criteria for up to 25 hours credit under Category 1 of the AMA Physician's Recognition Award. Contact: Beth Israel Hospital, 1601 Lowell Blvd, Denver 80204 (303) 825-2190 ext 350.

INTERNATIONAL SOCIETY OF EXPERIMENTAL HEMATOLOGY. The Seventh Annual Conference of the International Society of Experimental Hematology will be held in Chicago at the Drake Hotel, Aug 27–31. The conference includes sessions for meetings of the Leukocyte Collection and Transfusion Symposium Group. Contact: Walter Fried, MD, Div of Hematology/Oncology, Michael Reese Hospital and Medical Center, 29th and Ellis Ave, Chicago 60616.

CALENDAR OF LISTINGS

■Denotes Texas Meetings

AUGUST

ASPEN MUSHROOM CONFERENCE, Aspen, Colo, Aug 13–18, 1978. Beth Israel Hospital, 1601 Lowell Blvd, Denver 80204.

COLLEGE OF AMERICAN PATHOLOGISTS, Boston, Aug 18, 1978. 7400 N Skokie Blvd, Skokie, Ill 60076.

INTERNATIONAL SOCIETY FOR EXPERIMENTAL HEMATOLOGY, Chicago, Aug 27–31, 1978. Walter Fried, MD, Division of Hematology/Oncology, Michael Reese Hospital and Medical Center, 29th & Ellis Ave, Chicago 60616.

SEPTEMBER

AMERICAN ACADEMY OF FAMILY PHYSICIANS, San Francisco, Sep 25–28, 1978. Roger Tusken, 1740 W 92 St, Kansas City, Mo 64114.

AMERICAN ACADEMY OF OCCUPATIONAL MEDICINE, Williamsburg, Va, Sep 20–22, 1978. Howard N Schulz, 150 N Wacker Dr, Chicago 60606.

AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE, New York, Sep 24–29, 1978. 2317 W Jefferson St, Suite 208, Joliet, Ill 60435.

AMERICAN CANCER SOCIETY, INC, National Conference on Care of the Child With Cancer, Boston, Sep 11–13, 1978. 777 Third Ave, New York 10017.

■ AMERICAN COLLEGE OF EMERGENCY PHYSICIANS, Houston, Sep 19–21, 1978. AE Auer, Exec Dir, 3900 Capital City Blvd, Lansing, Mich 48906.

AMERICAN COUNCIL OF OTOLARYNGOLOGY, Las Vegas, Nev, Sep 10, 1978. Harry W. McCurdy, Exec Dir, 1100 17 St, NW, Suite 620, Washington, DC 20036.

AMERICAN DIETETIC ASSOCIATION, New Orleans, Sep 25–29, 1978 Clara Zempel, RD, 430 N Michigan Ave, Chicago 60611

AMERICAN ELECTROENCEPHALOGRAPHIC SOCIETY, San Francisco, Sep 7–9, 1978. Margaret H Henry, Exec Sec, 38238 Glenn Ave, Willoughby, OH 44094.

AMERICAN MEDICAL ASSOCIATION, 38th Annual Congress on Occupational Health, Tucson, Ariz, Sep 14–16, 1978. Barbara S Jansson, Department of Environmental, Public, and Occupational Health, 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL ASSOCIATION, Medical Staff Leadership Seminar, New Orleans, Sep 29–30, 1978. Department of Hospitals and Health Facilities, 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL ASSOCIATION, 3rd Natl Conference on Impaired Physicians, Minneapolis, Sep 29–Oct 1, 1978. 535 N Dearborn St, Chicago 60610.

AMERICAN SOCIETY OF INTERNAL MEDICINE, Orlando, Fla, Sep 29–30, 1978. 535 Central Tower Bldg, 703 Market St, San Francisco 94103.

AMERICAN SOCIETY OF LAW & MEDICINE, Washington, DC, Sep 21–23, 1978. A Edward Doudera, 454 Brookline Ave, Boston 02215

■ BLACKFORD MEMORIAL LECTURES, Denison, Tex, Sep 9, 1978. John D Gleckler, MD, 211 N Fannin, Denison, Tex 75020.

■ FLYING PHYSICIANS ASSOCIATION, INC, Houston, Sep 9–14, 1978. Al Carriere, Business Counsel, 801 Green Bay Rd, Lake Bluff, Ill 60044.

■ SOUTH PLAINS CHAPTER, TEXAS ACADEMY OF FAMILY PHYSICIANS, Lubbock, Sep 23, 1978. Norma Porres, MD, Sec, 4005 24th St, Lubbock, Tex 79410.

■ TEXAS MEDICAL ASSOCIATION, Fall Conference, Austin, Tex, Sep 22–24, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.

■ TEXAS PEDIATRIC SOCIETY, Amarillo, Tex, Sep 15–16, 1978. Laurance N Nickey, MD, District Chairman, 1515 N Oregon St, El Paso, Tex 79902.

WORLD FEDERATION OF NUCLEAR MEDICINE AND BIOLOGY, Washington, DC, Sep 17–21, 1978. 1629 K St, NW, Suite 700, Washington, DC 20006.

OCTOBER

AMERICAN ACADEMY OF PEDIATRICS, Chicago, Oct 21–26, 1978 Robert Frazier, 1801 Hinman, Evanston, IL 60204

AMERICAN COLLEGE OF ALLERGISTS, 2nd Intl Symposium on Food Allergy, Mexico City, Oct 16–20, 1978 Frances P White, 2141 14th St, Boulder, CO 80302.

AMERICAN COLLEGE OF CHEST PHYSICIANS, Washington, DC, Oct 29–Nov 2, 1978. Alfred Soffer, MD, 911 Busse Highway, Park Ridge, IL 60068.

AMERICAN COLLEGE OF GASTROENTEROLOGY, New Orleans, Oct 23–29, 1978. Daniel Weiss, 299 Broadway, New York 10007.

AMERICAN COLLEGE OF SURGEONS, San Francisco, Oct 16–20, 1978. C Rollins Hanlon, MD, 55 E Erie St, Chicago 60611.

AMERICAN DENTAL ASSOCIATION, Anaheim, Calif, Oct 22–26, 1978. C Gordan Watson, MD, 211 E Chicago, Chicago 60611

AMERICAN GROUP PRACTICE ASSOCIATION, New Orleans, Oct 25–28, 1978. W Grayburn Davis, MD, 20 S Quaker Lane, Alexander, VA 22314.

AMERICAN INSTITUTE OF ULTRASOUND IN MEDICINE, San Diego, CA, Oct 19–23, 1978. 6161 N May, Oklahoma City 73116.

AMERICAN MEDICAL ASSOCIATION, 2nd Annual Jail Conference, Chicago, Oct 27–28, 1978. 535 N Dearborn St, Chicago 60610.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES, New Orleans, Oct 22–26, 1978. John Cooper, MD, 1 Dupont Cir, NW, Washington, DC 20036.

ASSOCIATION OF LIFE INSURANCE MEDICAL DIRECTORS OF AMERICA, Atlanta, Oct 22–24, 1978. Harold S Kost, MD, John Hancock, Boston 02117

■ PANHANDLE DISTRICT MEDICAL SOCIETY, Amarillo, Tex, Oct 21, 1978. Carlie Umphres, Box 3276, Amarillo, Tex 79604

SOCIETY FOR CLINICAL AND EXPERIMENTAL HYPNOSIS, Asheville, NC, Oct 17–22, 1978. Mrs Marion Kenn, Admin Dir, 129A Kings Park Dr, Liverpool, NY 13088.

■ TEXAS ACADEMY OF FAMILY PHYSICIANS, San Antonio, Oct 15–17, 1978. Donald C. Jackson, 1901 N Lamar Blvd, Austin TX 78705.

NOVEMBER

AMERICAN ASSOCIATION OF BLOOD BANKS, New Orleans, Nov 4–9, 1978 Ben F Peake, 1828 L St, NW, Washington, DC 20036

AMERICAN ASSOCIATION FOR CLINICAL IMMUNOLOGY AND ALLERGY, Miami Beach, FL, Nov 12–16, 1978. H. Silber, PO Box 912, Omaha, NE 68101.

AMERICAN ASSOCIATION OF GYNECOLOGICAL LAPAROSCOPISTS, Hollywood, Fla, Nov 16–19, 1978. Jordan M Phillips, MD, 11239 S Lakewood, Downey, Calif 90241.

AMERICAN CANCER SOCIETY, INC, New York, Nov 9–11, 1978. Lane W Adams, 777 Third Ave, New York 10017

AMERICAN CONGRESS OF REHABILITATION MEDICINE, New Orleans, Nov 12–17, 1978 Creston C Herold, 30 N Michigan Ave, Chicago 60602

AMERICAN HUMANE ASSOCIATION, Miami, Nov 26–29, 1978. Kathern Bond, 5251 S Roslyn St, Englewood, Colo 80110.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Petersburg Beach, Fla, Nov 8–12, 1978. Lorraine Loesel, 1740 Broadway, New York 10019.

ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES, Washington, DC, Nov 26–30, 1978. RADM Walter Welham, MC, USN Ret, 10605 Concord, Suite 306, Kensington, Md 20795.

AMERICAN SOCIETY OF CYTOLOGY, Miami, Nov 7–11, 1978. WR Lang, MD, Sec, Health Sciences Center, 130 S Ninth St, Suite 1006, Philadelphia 19107.

AMERICAN SOCIETY OF PLASTIC AND RECONSTRUCTIVE SURGEONS, Hollywood, FL, Nov 5–10, 1978 Dallas F Whaley, CAE, 29 E Madison, Chicago 60602.

MEDICAL SOCIETY OF THE US & MEXICO, Guadalajara, Jalisco, Mexico, Nov 15–18, 1978. Carolyn Parsons, 3161 N Pantano Rd, Tucson, Ariz 85715.

■ NATIONAL JOINT PRACTICE COMMISSION, Dallas, Nov 9–11, 1978. WB Schaffrath, PhD, Dir, 35 E Wacker Dr, Suite 1990, Chicago 60601.

SOUTHERN MEDICAL ASSOCIATION, Georgia World Congress Center, Nov 11–14, 1978. 2601 Highland Ave, Birmingham, Ala 35205.

■ TEXAS MEDICAL ASSOCIATION, House of Delegates, Austin, Tex, Nov 11–12, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin 78701.

DECEMBER

AMERICAN ACADEMY OF DERMATOLOGY, San Francisco, Dec 2–7, 1978. Bradford W Claxton, 820 Davis St, Evanston, Ill 60201.

■ SOUTHWESTERN GYNECOLOGIC ASSEMBLY, Dallas, Dec 7–9, 1978. 3630 Noble Ave, Dallas 75204.

CONTINUING EDUCATION COURSES

AUGUST

Malignant Disease

Title: Third Annual Urologic Oncology Seminar

Sponsor: The University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute

Location of course: Shamrock Hilton Hotel, Houston

Date: Aug 3–4, 1978

Fee: $75

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Douglas E. Johnson, MD, Head, Department of Urology, M.D. Anderson Hospital, 6723 Bertner, Houston 77030

SEPTEMBER

Anesthesiology

Title: Annual Meeting, Texas Society of Anesthesiologists

Sponsors: Texas Society of Anesthesiologists, Austin

Location of course: Galveston

Date: Sept 16, 1978

Duration: 1 day; Saturday; 8 am–5 pm; 7 total course hours

Fee: Fee for nonmembers to be announced

Designed for: Specialists in Anesthesiology

Credit: Category 1, AMA Physician's Recognition Award; 6¼ hours

Teaching methods: Audiovisual materials, lecture, open question, panel

Contact: John A. Jenicek, MD, UT Medical Branch, 800 Mechanic St, Galveston 77550

Cardiovascular Disease

Title: Current Topics in Coronary Artery Disease—1978

Sponsors: Baylor College of Medicine, Department of Medicine

Location of course: Auditorium, Jesse H. Jones Library Bldg, Texas Medical Center

Date: Sept 7–9, 1978

Duration: 2½ days

Fee: $175

Designed for: Internists; Cardiologists; General practitioners; Specialists in Family Medicine

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Forensic Medicine

Title: Legal Process in Mental Health and Family Law

Sponsors: UT Health Science Center at San Antonio; Wilford Hall USAF Medical Center; Criminal Law Association, St Mary's School of Law

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio; St Mary's University Law School

Date: September 29, 1978

Duration: Continuous; 1 day; 1–4 pm; 7–10 pm (at St Mary's)

Fee: $20

Enrollment: Maximum, 175

Credit: Category 1, AMA Physician's Recognition Award; 5 hours

Teaching methods: Audiovisual materials, lecture, open question

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Internal Medicine

Title: Cancer: A Multidisciplinary Approach

Sponsors: Continuing Medical Education Department of Short Courses, Department of Internal Medicine-Division of Oncology, UT Medical Branch, Galveston; UT Medical Branch Cancer Center

Location of course: Galvez Hotel/Motel, 21st & Seawall, Galveston

Date: September 13–16, 1978

Duration: Continuous; 2½ days; 8 hours instruction per day; 8 am–5 pm; 20 total course hours

Fee: $140

Designed for: General practitioners; Specialists in Surgery, Radiology, Internal Medicine

Enrollment: Minimum, 60; Maximum, 120

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 20 hours

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Contact: Nekee Susan McNulty, Coordinator Continuing Medical Education Department of Short Courses, UT Medical Branch, 2nd Floor, Gail Borden Building, Galveston 77550

Obstetrics & Gynecology

Title: Great Debates

Sponsors: Department of Obstetrics & Gynecology, Baylor College of Medicine, Houston

Location of course: Auditorium, Jesse Jones Library Building, Texas Medical Center, Houston

Date: Sept 21–23, 1978

Duration: Continuous; 2½ days; 6 hours instruction per day; 15 total course hours

Fee: $150

Designed for: Specialists in Obstetrics & Gynecology

Enrollment: Maximum, 500

Credit: Category 1, AMA Physician's Recognition Award; 15 hours

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Pediatrics

Title: Burns in Children

Sponsors: American Burn Association, Shriners Burns Institute of Galveston, The University of Texas Medical Branch Division of Continuing Education

Location of course: Flagship Hotel and Shriners Burns Institute; Galveston

Date: Sept 7-9, 1978

Fee: Physicians, $175; Others, $100

Designed for: Physicians, nurses, occupational therapists, respiratory therapists, physical therapists, dietitians and other members of the burn team

Contact: Dr Hugo F. Carvajal, Shriners Burns Institute, 610 Texas Ave, Galveston 77550, (713) 765-2306

Title: 2nd Annual Current Concepts in Pediatrics

Sponsors: Texas Tech University School of Medicine

Location of course: SouthPark Inn, 3201 South Loop 289, Lubbock, Tex

Date: Sept 29–30, 1978

Duration: Continuous; 1½ days, Friday–Saturday

Fee: $50

Designed for: General practitioners; Specialists in Pediatrics

Credit: AAFP Prescribed, Category 1, AMA Physician's Recognition Award, AOA

Contact: Roy C. Allen, EdD, Director, Educational Development and Continuing Education, Texas Tech University School of Medicine, PO Box 4569, Lubbock, Tex 79409

Psychiatry

Title: Canadian Culture and the Healing Arts—Film Festival '78

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio Auditorium, 7703 Floyd Curl Dr, San Antonio

Date: Sept 15-17, 1978

Duration: Continuous; 3 days; Friday—Sunday

Designed for: General practitioners; Specialists in Psychiatry

Credit: Category 1, AMA Physician's Recognition Award; 16 hours

Teaching methods: Audiovisual materials, lecture

Contact: Sharon Ray, Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

OCTOBER

Emergency Care

Title: UTMB Trauma Conference

Sponsors: Continuing Medical Education Dept, Division of Short Courses, UT Medical Branch, Galveston

Location of course: Galvez Hotel/Motel, 21st & Seawall, Galveston

Date: Oct 12–14, 1978

Duration: Continuous; 2½ days; 8 hours instruction per day; Thursday–Saturday; 8 am–5 pm; 20 total course hours

Fee: $140

Designed for: General practitioners; Specialists in Emergency Care, Surgery, Internal Medicine

Enrollment: Minimum, 60; Maximum, 150

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 20 hours

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Contact: NeKee McNulty, Coordinator, CME—Short Courses, 2nd Floor, Gail Borden Bldg, UT Medical Branch, Galveston 77550

Family Medicine

Title: Advances in Laboratory Medicine

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio

Date: Oct 7–8, 1978

Duration: Continuous; 2 days; Saturday–Sunday

Fee: $75

Designed for: General practitioners; Specialists in Primary Care

Enrollment: Minimum, 20; Maximum, 120

Credit: Category 1, AMA Physician's Recognition Award

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

General Medicine

Title: Southwest College Health Association Annual Meeting

Sponsors: UT Health Science Center at San Antonio; Southwest College Health Association

Location of course: El Tropicano Hotel, San Antonio

Date: Oct 19–21, 1978

Duration: Continuous; 3 days; Thursday, 1–6 pm, Friday–Saturday, 8am–5 pm

Fee: To be announced

Enrollment: Minimum, 75; Maximum, open

Credit: AAFP; Category 1, AMA Physician's Recognition Award; 4 hours

Teaching Methods: Audiovisual materials, lecture, open question

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Radiology & Radioisotopes

Title: Seminar with Specialists in Diagnostic Radiology

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio

Date: Oct 26–27, 1978

Duration: Continuous; 2 days; Thursday–Friday; 12 total course hours

Fee: To be announced

Designed for: Specialists in Radiology

Credit: Category 1, AMA Physician's Recognition Award; 12 hours

Teaching Methods: Audiovisual materials, lecture, open question

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

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stepping down estrogen levels to 50 mcg?

Do you have patients currently taking oral contraceptives containing 100 mcg of estrogen for contraception? A switch to a 50 mcg product may be desirable.§

Prospective and retrospective studies indicate a relationship between estrogen doses and serious adverse side effects. ". . .preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism. . ."† The incidence of these side effects decreases as the dosage of estrogen decreases to 50 mcg, as demonstrated in British studies.†

†See Prescribing Information.

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21 and 28-day regimens

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§Serious as well as minor side effects have been reported with the use of oral contraceptives. These include thromboembolic disease. The physician should remain alert to the earliest manifestations of any symptoms of serious disease and discontinue oral contraceptive therapy when appropriate. The physician should be fully aware of the complete Prescribing Information for this product.

See the complete Prescribing Information for this product,
a summary of which is on the next page.

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OJ 1291

ORTHO-NOVUM* Tablets

IMPORTANT NOTE—This information is a BRIEF SUMMARY of the complete prescribing information provided with the product and therefore should not be used as the basis for prescribing the product. This summary was prepared by deleting from the complete prescribing information certain text, tables, and references. The physician should be thoroughly familiar with the complete prescribing information and patient information before prescribing the product.

INDICATION: CONTRACEPTION. The pregnancy rate in women using conventional combination oral contraceptives (containing 35 mcg or more of ethinyl estradiol or 50 mcg or more of mestranol) is generally reported as less than one pregnancy per 100 woman-years of use. Slightly higher rates (somewhat more than one pregnancy per 100 woman-years of use) are reported for some combination products containing 35 mcg or less of ethinyl estradiol, and rates on the order of three pregnancies per 100 woman-years are reported for the progestogen-only oral contraceptives. Table 1 gives ranges of pregnancy rates reported in the literature for other means of contraception. The efficacy of these means of contraception (except the IUD) depends upon the degree of adherence to the method.

Table 1: Pregnancies Per 100 Women-Years. IUD, less than 1-6; Diaphragm with spermicidal product (creams or jellies), 2-20; Condom, 3-36; Aerosol foams, 2-29; Jellies and creams, 4-36; Periodic abstinence (rhythm) all types, less than 1-47; 1. Calendar method, 14-47; 2. Temperature method, 1-20; 3. Temperature method—intercourse only in postovulatory phase, less than 1-7; 4. Mucus method, 1-25; No contraception, 60-80. **DOSE-RELATED RISK OF THROMBOEMBOLISM FROM ORAL CONTRACEPTIVES:** Two studies have shown a positive association between the dose of estrogens in oral contraceptives and the risk of thromboembolism. For this reason, it is prudent and in keeping with good principles of therapeutics to minimize exposure to estrogen. The oral contraceptive product prescribed for any given patient should be that product which contains the least amount of estrogen that is compatible with an acceptable pregnancy rate and patient acceptance. It is recommended that new acceptors of oral contraceptives be started on preparations containing .05 mg or less of estrogen. **CONTRAINDICATIONS:** Oral contraceptives should not be used in women with any of the following conditions: 1. Thrombophlebitis or thromboembolic disorders. 2. A past history of deep vein thrombophlebitis or thromboembolic disorders. 3. Cerebral vascular or coronary artery disease. 4. Known or suspected carcinoma of the breast. 5. Known or suspected estrogen-dependent neoplasia. 6. Undiagnosed, abnormal genital bleeding. 7. Known or suspected pregnancy (see WARNINGS, No. 5).

WARNINGS

Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. This risk increases with age and with heavy smoking (15 or more cigarettes per day) and is quite marked in women over 35 years of age. Women who use oral contraceptives should be strongly advised not to smoke.

The use of oral contraceptives is associated with increased risk of several serious conditions including thromboembolism, stroke, myocardial infarction, hepatic adenoma, gallbladder disease, hypertension. Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks.

1. THROMBOEMBOLIC DISORDERS AND OTHER VASCULAR PROBLEMS. An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well established. Four principal studies in Great Britain and three in the United States have demonstrated an increased risk of fatal and nonfatal venous thromboembolism and stroke, both hemorrhagic and thrombotic. These studies estimate that users of oral contraceptives are 4 to 11 times more likely than nonusers to develop these diseases without evident cause. Overall excess mortality due to pulmonary embolism or stroke is on the order of 1.0 to 3.5 deaths annually per 100,000 users and increases with age. **CEREBROVASCULAR DISORDERS:** In a collaborative American study of cerebrovascular disorders in women with and without predisposing causes, it was estimated that the risk of hemorrhagic stroke was 2.0 times greater in users than in nonusers and the risk of thrombotic stroke was 4.0 to 9.5 times greater in users than in nonusers.

MYOCARDIAL INFARCTION: An increased risk of myocardial infarction associated with the use of oral contraceptives has been reported confirming a previously suspected association. These studies, conducted in the United Kingdom, found, as expected, that the greater the number of underlying risk factors for coronary artery disease (cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, history of preeclamptic toxemia), the higher the risk of developing myocardial infarction, regardless of whether the patient was an oral contraceptive user or not. Oral contraceptives, however, were found to be a clear additional risk factor. The annual excess case rate (increased risk) of myocardial infarction (fatal and nonfatal) in oral contraceptive users was estimated to be approximately 7 cases per 100,000 women users in the 30-39 age group and 67 cases per 100,000 women users in the 40-44 age group. In terms of relative risk, it has been estimated that oral contraceptive users who do not smoke (smoking is considered a major predisposing condition to myocardial infarction) are about twice as likely to have a fatal myocardial infarction as nonusers who do not smoke. Oral contraceptive users who are also smokers have about a 5-fold increased risk of fatal infarction compared to users who do not smoke, but about a 10-to 12-fold increased risk compared to nonusers who do not smoke. Furthermore, the amount of smoking is also an important factor. In determining the importance of these relative risks, however, the baseline rates for various age groups must be given serious consideration. The importance of other predisposing conditions mentioned above in determining relative and absolute risks has not as yet been quantified; it is quite likely that the same synergistic action exists, but perhaps to a lesser extent. **Risk of Dose:** In an analysis of data derived from several national adverse reaction reporting systems, British investigators concluded that the risk of thromboembolism including coronary thrombosis is directly related to the dose of estrogen used in oral contraceptives. Preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism than those containing 50-80 mcg of estrogen. Their analysis did suggest, however, that the quantity of estrogen may not be the sole factor involved. This finding has been confirmed in the United States. Careful epidemiological studies to determine the degree of thromboembolic risk associated with progestogen-only oral contraceptives have not been performed. Cases of thromboembolic disease have been reported in women using these products, and they should not be presumed to be free of excess risk. The risk of thromboembolic and thrombotic disorders, in both users and nonusers of oral contraceptives, increases with age. Oral contraceptives are, however, an independent risk factor for these events. **ESTIMATE OF EXCESS MORTALITY FROM CIRCULATORY DISEASES:** A large prospective study carried out in the United Kingdom estimated the mortality rate per 100,000 women per year from diseases of the circulatory system for users and nonusers of oral contraceptives according to age, smoking habits, and duration of use. The overall excess death rate annually from circulatory diseases for oral contraceptive users was estimated to be 20 per 100,000 (ages 15-34—5/100,000; ages 35-44—33/100,000; ages 45-49—140/100,000), the risk being concentrated in older women, in those with a long duration of use, and in cigarette smokers. It was not possible, however, to examine the interrelationships of age, smoking, and duration of use, nor to compare the effects of continuous versus intermittent use. Although the study showed a 10-fold increase in death due to circulatory diseases in users for five or more years, all of these deaths occurred in women 35 or older. Until larger numbers of women under 35 with continuous use for five or more years are available, it is not possible to assess the magnitude of the relative risk for this younger age group. This study reports that the increased risk of circulatory diseases may persist after the pill is discontinued. Another study published at the same time confirms a previously reported increase of mortality in pill users from cardiovascular disease. The available data from a variety of sources have been analyzed to estimate the risk of death associated with various methods of contraception. The estimates of risk of death for each method include the combined risk of the contraceptive method (e.g., thromboembolic and thrombotic disease in the case of oral contraceptives) plus the risk attributable to pregnancy or abortion in the event of method failure. This latter risk varies with the effectiveness of the contraceptive method. The findings of this analysis are shown in Figure 1 below. The study concluded that the mortality associated with all methods of birth control is low and below that associated with childbirth, with the exception of oral contraceptives in women over 40 who smoke. (The rates given for pill only/smokers for each age group are for smokers as a class. For "heavy" smokers [more than 15 cigarettes a day], the rates given would be about double; for "light" smokers [less than 15 cigarettes a day], about 50 percent.) The mortality associated with oral contraceptive use in nonsmokers over 40 is higher than with any other method of contraception in that age group. The lowest mortality is associated with the condom or diaphragm backed up by early abortion. The risk of thromboembolic and thrombotic disease associated with oral contraceptives increases with age after approximately age 30 and, for myocardial infarction, is further increased by hypertension, hypercholesterolemia, obesity, diabetes, or history of preeclamptic toxemia and especially by cigarette smoking. The risk of myocardial infarction in oral contraceptive users is substantially increased in women age 40 and over, especially those with other risk factors. The use of oral contraceptives in women in this age group is not recommended. Based on the data currently available, the following chart gives a gross estimate of the risk of death from circulatory disorders associated with the use of oral contraceptives:

SMOKING HABITS AND OTHER PREDISPOSING CONDITIONS—RISK ASSOCIATED WITH USE OF ORAL CONTRACEPTIVES

Age	Below 30	30-39	40+	
Heavy smokers	C	B	A	A—Use associated with very high risk.
Light smokers	D	C	B	B—Use associated with high risk
Nonsmokers (no predisposing conditions)	D	C,D	C	C—Use associated with moderate risk.
Nonsmokers (other predisposing conditions)	C	C,B	B,A	D—Use associated with low risk.

The physician and the patient should be alert to the earliest manifestations of thromboembolic and thrombotic disorders (e.g., thrombophlebitis, pulmonary embolism, cerebrovascular insufficiency, coronary occlusion, retinal thrombosis, and mesenteric thrombosis). Should any of these occur or be suspected, the drug should be discontinued immediately. A four- to six-fold increased risk of postsurgery thromboembolic complications has been reported in oral contraceptive users. If feasible, oral contraceptives should be discontinued at least four weeks before surgery of a type associated with an increased risk of thromboembolism or prolonged immobilization. 2. OCULAR LESIONS. There have been reports of neuro-ocular lesions such as optic neuritis or retinal thrombosis associated with the use of oral contraceptives. Discontinue oral contraceptive medication if there is unexplained, sudden or gradual, partial or complete loss of vision; onset of proptosis or diplopia; papilledema; or retinal vascular lesions and institute appropriate diagnostic and therapeutic measures. 3. CARCINOMA. Long-term continuous administration of either natural or synthetic estrogen in certain animal species increases the frequency of carcinoma of the breast, cervix, vagina, and liver. Certain synthetic progestogens, none currently contained in oral contraceptives, have been noted to increase the incidence of mammary nodules, benign and malignant, in dogs. In humans, three case control studies have reported an increased risk of endometrial carcinoma associated with the prolonged use of exogenous estrogen in postmenopausal women. One publication reported on the first 21 cases submitted by physicians to a registry of cases of adenocarcinoma of the endometrium in women under 40 on oral contraceptives. Of the cases found in women without predisposing risk factors for adenocarcinoma of the endometrium (e.g., irregular bleeding at the time oral contraceptives were first given, polycystic ovaries), nearly all occurred in women who had used a sequential oral contraceptive. These products are no longer marketed. No evidence has been reported suggesting an increased risk of endometrial cancer in users of conventional combination or progestogen-only oral contraceptives. Several studies have found no increases in breast cancer in women taking oral contraceptives or estrogens. One study, however, while also noting no overall increased risk of breast cancer in women treated with oral contraceptives, found an excess risk in the subgroups of oral contraceptive users with documented benign breast disease. A reduced occurrence of benign breast tumors in users of oral contraceptives has been well-documented. In summary, there is at present no confirmed evidence from human studies of an increased risk of cancer associated with oral contraceptives. Close clinical surveillance of all women taking oral contraceptives is, nevertheless, essential. In all cases of undiagnosed persistent or recurrent abnormal vaginal bleeding, appropriate diagnostic measures should be taken to rule out malignancy. Women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease or abnormal mammograms should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception.

Figure 1. Estimated annual number of deaths associated with control of fertility and no control per 100,000 nonsterile women, by regimen of control and age of woman.

	15-19	20-24	25-29	30-34	35-39	40-44
No method	5.5	5.2	7.1	14.0	19.3	21.9
Abortion only	2.3	2.5	2.5	5.2	9.8	6.6
Pill only-nonsmokers	1.3	1.4	1.4	2.2	4.5	3.1
Pill only-smokers	1.5	1.6	1.6	10.8	13.4	58.9
IUDs only	1.1	1.2	1.2	1.4	1.6	1.4
Traditional contraception only	1.1	1.4	1.9	3.7	4.7	4.0
Traditional contraception and abortion	0.3	0.4	0.4	0.8	1.4	0.8

4. HEPATIC TUMORS. Benign hepatic adenomas have been found to be associated with the use of oral contraceptives. One study showed that oral contraceptive formulations with high hormonal potency were associated with a higher risk than lower potency formulations. Although benign, hepatic adenomas may rupture and may cause death through intra-abdominal hemorrhage. This has been reported in short-term as well as long-term users of oral contraceptives. Two studies relate risk with duration of use of the contraceptive, the risk being much greater after four or more years of oral contraceptive use. While hepatic adenoma is a rare lesion, it should be considered in women presenting abdominal pain and tenderness, abdominal mass or shock. A few cases of hepatocellular carcinoma have been reported in women taking oral contraceptives. The relationship of these drugs to this type of malignancy is not known at this time. 5. USE IN OR IMMEDIATELY PRECEDING PREGNANCY, BIRTH DEFECTS IN OFFSPRING, AND MALIGNANCY IN FEMALE OFFSPRING. The use of female sex hormones—both estrogenic and progestational agents—during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated to be on the order of 1 to 4 in 1000 exposures. Although there is no evidence at the present time that oral contraceptives further enhance the risk of developing this type of malignancy, such patients should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception. Furthermore, a high percentage of such exposed women (from 30 to 90%) have been found to have epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether this condition is a precursor of vaginal malignancy. Male children so exposed may develop abnormalities of the urogenital tract. Although similar data are not available with the use of other estrogens, it cannot be presumed that they would not induce similar changes. An increased risk of congenital anomalies, including heart defects and limb defects, has been reported with the use of sex hormones, including oral contraceptives, in pregnancy. One case control study has estimated a 4.7-fold increase in risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormonal withdrawal tests for pregnancy or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than one in 1,000 live births. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestogens are effective for these uses. There is some evidence that triploidy and possibly other types of polyploidy are increased among abortuses from women who become pregnant soon after ceasing oral contraceptives. Embryos with these anomalies are virtually always aborted spontaneously. Whether there is an overall increase in spontaneous abortion of pregnancies conceived soon after stopping oral contraceptives is unknown. Pregnancy should be ruled out before initiating or continuing the contraceptive regimen. Pregnancy should always be considered if withdrawal bleeding does not occur. If pregnancy is confirmed, the patient should be apprised of the potential risks to the fetus and the advisability of continuation of the pregnancy should be discussed in the light of these risks. It is also recommended that women who discontinue oral contraceptives with the intent of becoming pregnant use an alternate form of contraception for a period of time before attempting to conceive. Many clinicians recommend three months although no precise information is available on which to base this recommendation. The administration of progestogen-only or progestogen-estrogen combinations to induce withdrawal bleeding should not be used as a test of pregnancy. 6. GALLBLADDER DISEASE. Studies report an increased risk of surgically confirmed gallbladder disease in users of oral contraceptives and estrogens. In one study, an increased risk appeared after two years of use and doubled after four or five years of use. In one of the other studies, an increased risk was apparent between six and twelve months of use. 7. CARBOHYDRATE AND LIPID METABOLIC EFFECTS. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. For this reason, prediabetic and diabetic patients should be carefully observed while receiving oral contraceptives. An increase in triglycerides and total phospholipids has been observed in patients receiving oral contraceptives. 8. ELEVATED BLOOD PRESSURE. An increase in blood pressure has been reported in patients receiving oral contraceptives. In some women hypertension may occur within a few months of beginning oral contraceptive use. In the first year of use, the prevalence of women with hypertension is low in users and may be no higher than that of a comparable group of nonusers. The prevalence in users increases, however, with longer exposure, and in the fifth year of use is two and a half to three times the reported prevalence in the first year. Age is also strongly correlated with the development of hypertension in oral contraceptive users. Women who previously have had hypertension during pregnancy may be more likely to develop elevation of blood pressure when given oral contraceptives. Hypertension that develops as a result of taking oral contraceptives usually returns to normal after discontinuing the drug. 9. HEADACHE. The onset or exacerbation of migraine or development of headache of a new pattern which is recurrent, persistent, or severe, requires discontinuation of oral contraceptives and evaluation of the cause. 10. BLEEDING IRREGULARITIES. Breakthrough bleeding, spotting, and amenorrhea are frequent reasons for patients discontinuing oral contraceptives. In breakthrough bleeding, as in all cases of irregular bleeding from the vagina, nonfunctional causes should be borne in mind. In undiagnosed persistent or recurrent abnormal bleeding from the vagina, adequate diagnostic measures are indicated to rule out pregnancy or malignancy. If pathology has been excluded, time or a change to another formulation may solve the problem. Changing to an oral contraceptive with a higher estrogen content, while potentially useful in minimizing menstrual irregularity, should be done only if necessary since this may increase the risk of thromboembolic disease. Women with a past history of oligomenorrhea or secondary amenorrhea or young women without regular cycles may have a tendency to remain anovulatory or to become amenorrheic after discontinuation of oral contraceptives. Women with these preexisting problems should be advised of this possibility and encouraged to use other contraceptive methods. Postuse anovulation, possibly prolonged, may also occur in women without previous irregularities. 11. ECTOPIC PREGNANCY. Ectopic as well as intrauterine pregnancy may occur in contraceptive failures. 12. BREAST FEEDING. Oral contraceptives given in the postpartum period may interfere with lactation. There may be a decrease in the quantity and quality of the breast milk. Furthermore, a small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The effects, if any, on the breast-fed child have not been determined. If feasible, the use of oral contraceptives should be deferred until the infant has been weaned. **PRECAUTIONS: General:** 1. A complete medical and family history should be taken prior to the initiation of oral contraceptives. The pretreatment and periodic physical examinations should include special reference to blood pressure, breasts, abdomen and pelvic organs, including Papanicolaou smear and relevant laboratory tests. As a general rule, oral contraceptives should not be prescribed for longer than one year without another physical examination being performed. 2. Under the influence of estrogen-progestogen preparations, preexisting uterine leiomyomata may increase in size. 3. Patients with a history of psychic depression should be carefully observed and the drug discontinued if depression recurs to a serious degree. Patients becoming significantly depressed while taking oral contraceptives should stop the medication and use an alternate method of contraception in an attempt to determine whether the symptom is drug-related. 4. Oral contraceptives may cause some degree of fluid retention. They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention, such as convulsive disorders, migraine syndrome, asthma, or cardiac or renal insufficiency. 5. Patients with a past history of jaundice during pregnancy have an increased risk of recurrence of jaundice while receiving oral contraceptive therapy. If jaundice develops in any patient receiving such drugs, the medication should be discontinued. 6. Steroid hormones may be poorly metabolized in patients with impaired liver function and should be administered with caution in such patients. 7. Oral contraceptive users may have disturbances in normal tryptophan metabolism which may result in a relative pyridoxine deficiency. 8. Serum folate levels may be depressed by oral contraceptive therapy. Since the pregnant woman is predisposed to the development of folate deficiency and the incidence of folate deficiency increases with increasing gestation, it is possible that if a woman becomes pregnant shortly after stopping oral contraceptives, she may have a greater chance of developing folate deficiency and complications attributed to this deficiency. 9. The pathologist should be advised of oral contraceptive therapy when relevant specimens are submitted. 10. Certain endocrine and liver function tests and blood components may be affected by estrogen-containing oral contraceptives: a. Increased sulfobromophthalein retention. b. Increased prothrombin and factors VII, VIII, IX, and X; decreased antithrombin 3; increased norepinephrine-induced platelet aggregability. c. Increased thyroid-binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by protein-bound iodine (PBI), T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG, free T4 concentration is unaltered. d. Decreased pregnanediol excretion. e. Reduced response to metyrapone test. **INFORMATION FOR THE PATIENT: (See Patient Package Insert). DRUG INTERACTIONS:** Reduced efficacy and increased incidence of breakthrough bleeding have been associated with concomitant use of rifampin. A similar association has been suggested with barbiturates, phenylbutazone, phenytoin sodium, and ampicillin. **CARCINOGENESIS, PREGNANCY, NURSING MOTHERS: See CONTRAINDICATIONS and WARNINGS. ADVERSE REACTIONS:** An increased risk of the following serious adverse reactions has been associated with the use of oral contraceptives (see WARNINGS): Thrombophlebitis. Pulmonary embolism. Coronary thrombosis. Cerebral thrombosis. Cerebral hemorrhage. Hypertension. Gallbladder disease. Liver tumors. Congenital anomalies. There is evidence of an association between the following conditions and the use of oral contraceptives, although additional confirmatory studies are needed: Mesenteric thrombosis. Neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis. The following adverse reactions have been reported in patients receiving oral contraceptives and are believed to be drug-related: Nausea, usually the most common adverse reaction. Vomiting, occurs in approximately 10% or less of patients during the first cycle. Other reactions, as a general rule, are seen much less frequently or only occasionally. Gastrointestinal symptoms (such as abdominal cramps and bloating). Breakthrough bleeding. Spotting. Change in menstrual flow. Dysmenorrhea. Amenorrhea during and after treatment. Temporary infertility after discontinuance of treatment. Edema. Chloasma or melasma which may persist. Breast changes: tenderness, enlargement, and secretion. Change in weight (increase or decrease). Change in cervical erosion and cervical secretion. Possible diminution in lactation when given immediately postpartum. Cholestatic jaundice. Migraine. Increase in size of uterine leiomyomata. Rash (allergic). Mental depression. Reduced tolerance to carbohydrates. Vaginal candidiasis. Change in corneal curvature (steepening). Intolerance to contact lenses. The following adverse reactions have been reported in users of oral contraceptives, and the association has been neither confirmed nor refuted: Premenstrual-like syndrome. Cataracts. Changes in libido. Chorea. Changes in appetite. Cystitis-like syndrome. Headache. Nervousness. Dizziness. Hirsutism. Loss of scalp hair. Erythema multiforme. Erythema nodosum. Hemorrhagic eruption. Vaginitis. Porphyria. Impaired renal function. (ORTHO-NOVUM 1/50□21 and ORTHO-NOVUM 1/50□2B contain tartrazine. Allergic reactions have been reported with the ingestion of this dye in some patients.) **ACUTE OVERDOSE:** Serious ill effects have not been reported following acute ingestion of large doses of oral contraceptives by young children. Overdosage may cause nausea, and withdrawal bleeding may occur in females.

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Treatment of status epilepticus: a review

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Status epilepticus is an emergency situation that many physicians may encounter in the course of their practice. Often therapy for the condition is not started soon enough and anticonvulsant medications are given in inadequate dosage. This article attempts to inform the physician about the treatment of status epilepticus, and proposes a treatment strategy and guidelines.

The patient with epilepsy is often encountered in every physician's practice. For some of these patients, seizure control with anticonvulsants may be relatively easy. Some live normal lives and remain unaffected by the stigma that confronts many epileptics, particularly those who have not had the benefits of education and strong family support. Rarely is epilepsy life-threatening. However, the emergency situation of status epilepticus is the one exception, as death may result in as many as 10–20% of patients in whom this complication develops. Often too much time elapses before status epilepticus is diagnosed and vigorously treated. Education of patients, physicians, and the general public is vital if the consequences of the condition are to be avoided.

Much controversy surrounds the etiology and treatment of status epilepticus, and confusion often arises when the patient presents in that condition. This article reviews the causes and treatment of status epilepticus with the hope that the guidelines provided will lead to a better understanding of its clinical management.

Etiology

Status epilepticus is a condition in which repeated epileptic seizures follow one another without significant recovery of consciousness between the individual attacks. The clinical presentation of such patients may vary greatly and an appreciation for the different types of seizures is fundamental to the recognition of status epilepticus. The most commonly occurring type is generalized tonic-clonic or grand mal. Status epilepticus may also present as partial complex (psychomotor), absence (petit mal), or partial elementary status (epilepsia partialis continua).[1] Fig 1 details the characteristics of each seizure type.

Oxbury and Whitty[2] stressed that status epilepticus frequently is due to symptomatic rather than idiopathic epilepsy. In the case of idiopathic epilepsy, status usually is seen only after the patient's seizure disorder has been deteriorating for a long time. In contrast, symptomatic epilepsy may often be the first sign of an underlying pathologic condition including cerebral tumor, cerebral-vascular disease, and central nervous system infection. Numerous tumor types have been associated with status epilepticus including gliomas, angiomatous malformations, and metastatic tumors. While there have been reports of specific kinds of tumors causing status, in general the evidence suggests that it is the siting of the lesion, whether tumor or other, rather than its nature, that determines the occurrence of status. The condition, however, is not always due to diffuse or extensive brain damage. Small focal lesions, particularly when located in the frontal lobes, also can cause status.

Status epilepticus may also be caused by inflammatory, degenerative, and demyelinating conditions as well as by encephalopathies, trauma, various metabolic diseases, and nutritional deficiencies. Certain drugs, including lithium, lidocaine, and chloroquine can also cause seizures that may result in status.[3] Fig 2 lists the various causes of status epilepticus. Far too often, status is seen in epileptic patients who may be well controlled with anticonvulsants and then suddenly stop taking their medication. Warning the epileptic patient of this potential threat is important.

Treatment

Irrespective of its cause, status epilepticus is an emergency that can be life-threatening unless immediate, rational therapy is started. It is important to stress the most common pitfalls encountered when attempting to control status epilepticus. Often the severity of the situation is underestimated and, as a result, the initial drug therapy is given in an inadequate dose. When this small dose is not effective, subsequent therapy often is prescribed hesitantly and in amounts that are insufficient. Once the status is interrupted there may well be exacerbations. This problem can be avoided if further parenteral medication is prescribed at regular intervals until consciousness is regained; oral medication can then be substituted. Basically, the longer the status continues the more difficult it is to treat. Cerebral edema may accompany and complicate the clinical course. Time is critical in limiting the morbidity and mortality of the episode.

Before medications are started, blood should be drawn for stat determinations of blood glucose, blood urea nitrogen, serum electrolytes, and calcium levels. The results of these tests can give vital clues to the etiology of the case (eg, hypoglycemia, hypocalcemia) and allow the

most rational therapy to be started at once. We also suggest that a clot tube be obtained for the gas-liquid chromatography determination of anticonvulsant drugs. The presence of such an agent in the serum will help to identify the patient who has been diagnosed as having epilepsy in the past, assuming that he presents for care before all of the medication has been eliminated by the body. In addition, a bolus of 50% dextrose in water should be given intravenously in order to rule out hypoglycemia. Some authors recommend the routine intravenous administration of up to 10 ml of 10% calcium gluconate.[4] This may be especially helpful in pediatric patients since they more frequently develop seizures as a result of hypocalcemia. In general, any medication should be administered by the intravenous route. Although intramuscular injections have been used with success, the extent and rapidity of anticonvulsant absorption from an intramuscular site may be drastically reduced, particularly in patients with status epilepticus.[5,6]

Fig 3 outlines the drugs used in status, as well as their side effects. There have been few controlled trials with respect to the comparative efficacy of the various drugs used in the treatment of status epilepticus. The conclusions that can be made are based mainly upon retrospective analysis and clinical experience. Despite this lack of hard scientific data, it sems fair to say that diazepam (Valium) is the current drug of choice for status epilepticus. The agent should be administered by the in-

1. General summary of clinical and electroencephalographic features of seizure types

Seizure Type	Clinical Presentation	EEG Features
Generalized tonic-clonic (grand mal)	Generalized tonic and clonic contractions of all voluntary muscles with loss of consciousness Tongue-biting, profuse salivation, incontinence and cyanosis Marked sympathetic discharge: tachycardia, increased blood pressure, mydriasis Postictal sleep, confusion, headache and muscle pain	Diffuse rhythmic spike activity Nonspecific abnormalities Interseizure tracing may be normal
Absence (petit mal)	Loss of consciousness of brief duration Staring or rhythmic blinking of the eyes Occurs almost exclusively in childhood after three years of age Occasional turning of the head, swallowing, or movement of an arm Up to 50–100 seizures per day	Diffuse, bilaterally synchronous spike and wave forms, usually recurring at a frequency of 3 cps
Partial with elementary symptomatology (focal)	Brief seizures of tonic or clonic movements of one or more muscles on one side of the body with or without sensory and autonomic symptoms Generally occur without impairment of consciousness May spread to involve other muscles (eg, jacksonian epilepsy) or secondarily generalize into a grand mal seizure May repeat at intervals of one or two seconds and persist for many hours without ceasing (epilepsia partialis continua)	Focal centralateral epileptic discharges in frontal areas during the seizure Brief discharges may be seen in some cases in the interictal period
Complex partial (psychomotor or temporal lobe)	Considerable patient variation Generally with a loss of consciousness Most common automatisms are staring episodes with smacking of lips, chewing movements, and mumbled speech Confused states with bizarre motor and/or psychic performances	Epileptiform discharges, usually spikes, from the anterior temporal areas in most patients Other EEG electrical abnormalities may be seen Interseizure tracing may be normal

travenous route at a rate not faster than 5 mg per minute until 10–20 mg is given. If the seizures have not stopped within ten minutes, another 5–10 mg may be administered.[7] If the seizures are arrested by this treatment, they may recur within 30 to 60 minutes since redistribution of the drug causes termination of its effects. For this reason, some authors [8,9] advocate the use of a diazepam infusion such as 100 mg in 500 ml of dextrose 5% and saline 0.2% in water given during a 12-hour period. However, despite these reports of diazepam infusions being effective, it is generally recognized that there are physical incompatibilities in such solutions and their clinical use should be restricted. The manufacturer of Valium explains that the reason for this restriction is that injectable diazepam has a very low solubility in aqueous solutions, requiring an alcoholic-propyleneglycol-water solvent vehicle. Dilution of the solvent system with water results in precipitation of the diazepam. If the solution is then acidified, a precipitate of benzoic acid will result, which may coprecipitate with the drug.

The use of an intravenous form of barbiturate is appropriate if an adequate trial of diazepam proves unsuccessful. *Phenobarbital* can be administered intravenously in doses of 120–150 mg at a rate not faster than 25–50 mg per minute. Additional phenobarbital may be given after 20 minutes if seizures continue, but a cumulative dose of 400 mg in two hours should be exceeded only in unusual situations.[7] Phenobarbital is presumed to enter the brain slowly and an immediate response cannot be expected.[11] For that reason, some prefer the use of *sodium amobarbital (Amytal)*, a shorter-acting barbiturate, in doses of 500 mg intravenously at a rate not faster than 50 mg every 30 seconds.[12] Diazepam and the barbiturates have the potential for producing the serious side effects of hypotension, cardiovascular collapse, and respiratory depression. Extreme caution should be taken and methods for cardiopulmonary support must be readily available.

As an alternative to phenobarbital, intravenous *phenytoin (diphenylhydantoin, Dilantin)* can be given in doses of 750–1,000 mg at a rate not faster than 50 mg per minute. This should be done carefully and serum albumin, liver, and renal functions must be taken into consideration since abnormalities in these physical parameters can alter the distribution and thus the serum levels of the drug. Special attention is needed in cardiac patients, since the drug may have serious effects on heart rate and conduction velocity. Any sign of hypotension, bradycardia, or QRS or PR interval prolongation is an indication for the discontinuation of phenytoin. Phenytoin-induced cardiac arrhythmias are extremely difficult to treat.

If the foregoing drugs have not been successful, *paraldehyde*, 0.15 mg per pound of body weight, may be given by intravenous infusion. Each milliliter of paraldehyde is diluted with 10 ml of 5% dextrose in water and then given by intravenous drip. Paraldehyde, on exposure to light and air, decomposes to acetaldehyde and is

2 Etiology of status epilepticus

1. Anticonvulsant Noncompliance
   Rapid discontinuation of anticonvulsants in previously diagnosed epileptics
2. Brain Tumors
   Location is of primary importance
   Tumor type may be of importance
3. Head Injury
   Penetration of the dura increases risk
   Seizures may occur months to years after the traumatic episode
4. Metabolic Errors
   Hypoglycemia
   Hypocalcemia
   Pyridoxine deficiency of dependency
   Hypomagnesemia
   Hyponatremia
   Electrolyte and acid-base disturbances
5. Cerebral Infections
   Seizures may occur during acute phase or as a sequela
   Meningitides and encephalitides are most important
   Parasitic agents
   Neurosyphilis
6. CNS Degenerative Diseases
   Alzheimer's disease
   Pick's disease
   Multiple sclerosis and others
7. Circulatory Causes
   Sudden decrease in cerebral blood flow
   Cerebrovascular diseases
   Venous thromboses
   Arteriovenous malformation
8. Drugs and Toxins
   Lithium, lidocaine, others
   Lead poisoning
   CNS depressant withdrawal
9. Antenatal and Perinatal Causes
   Infections
   Anoxia
   Trauma

oxidized to acetic acid. The use of deteriorated paraldehyde has been associated with four fatalities.[13] Pulmonary hemorrhage and pulmonary edema have been caused by the intravenous use of this hypnotic.

The use of the anesthetic and antiarrhythmic agent, *lidocaine (Xylocaine)*, has also been advocated and used with success, although anecdotally reported, in the treatment of status epilepticus.[14] This drug, after an initial calcium displacement, prevents spontaneous depolarization of cardiac and cerebral foci by blocking transmembrane sodium channels. The dosage of lidocaine that has been reported as being successful is similar to that used in ventricular disrhythmias. A loading dose of 30–50 mg given as an intravenous bolus is first administered. This may be followed by a continuous intravenous infusion at a rate of 2–3 mg per minute. The therapeutic plasma levels of lidocaine in cardiac conduction disturbances have been shown to range from 1.6–6.0 μg/ml.[15] However, this plasma level range has not been verified in patients with aberrant cerebral foci. Among notable side effects of the drug are sleepiness and dizziness. Moreover, seizures may be caused by toxic levels of lidocaine. These untoward effects must be taken into account when considering the use of this agent in patients with status epilepticus.

As a last resort, general anesthesia may have to be used to interrupt seizure activity when none of the medications above, used in adequate dosages, are helpful. In 1967, Brown and associates[16] recommended the use of *thiopental sodium (Pentothal Sodium)* as a continuous intravenous infusion. Based on their success in six years with 117 patients, they advocated an intravenous dose of 25–100 mg given slowly until the seizures stop. Then, 1 gm is dissolved in 550 ml of Ringer's lactate solution and given at a rate of 1 ml per minute. If seizures are absent for 30 minutes, the dose is then lowered by 50%. Initial 12-hour dosage requirements ranged from 0.5 to 2.0 gm, with the usual amount of administered pentothal being 1 gm in the first 12 hours. Dundee,[17] however, does not agree with the use of thiopental since the drug is structurally related to the barbiturates and may cause confusion in monitoring those who have already received phenobarbital, because the same anoxia, hypotension, respiratory depression, and metabolic acidosis may

3 Summary of the drugs used in status epilepticus

Drugs	Intravenous Dosage	Serum Level Therapeutic Range	Side Effects Associated With Intravenous Use	Comments
Diazepam (Valium)	10–20 mg initially; may repeat in 10 min	—	Hypotension Cardiovascular collapse	—
Phenobarbital	120–150 mg initially; may repeat after 20 min; avoid use of over 400 mg in 2 hr	10–30 μg/ml	Same as with Valium Nystagmus, ataxia (dose related) Skin rash, megaloblastic anemia	Monitor serum levels closely
Sodium Amobarbital (Amytal)	500 mg initially over 5 min	—	Same as phenobarbital	—
Phenytoin (Dilantin)	750–1,000 mg at rate of 50 mg/min	10–20 μg/ml	Same as phenobarbital Bradycardia Changes in cardiac conduction velocity	Extreme caution with cardiac patients; toxicity most often due to rapid injection; monitor serum levels
Paraldehyde	0.15 ml/lb by IV infusion	15–20 μg/ml	Pulmonary hemorrhage Acute pulmonary edema Metabolic acidosis	Liver damage markedly increases serum concentration
Lidocaine	30–50 mg IV bolus, then IV infusion at 2–3 mg/min	1.6–6.0 μg/ml	Focal and grand mal seizures Dizziness Respiratory arrest Heart block and sinoatrial arrest	Reduce dose in CHF and hepatic disease

occur. An experienced anesthesiologist is required for such a therapeutic maneuver.

Conclusions

The physician who treats a patient in status epilepticus must act quickly and judiciously to interrupt the convulsions using the methods and alternatives described. Our current recommendations for treatment of adult patients with generalized status epilepticus are illustrated in Fig 4. Care must be taken to provide the appropriate supportive measures as well. Maintenance of an adequate airway, restoration of fluid and electrolyte balance, control of infection or hyperpyrexia, and obtaining the critical blood chemistries should be accomplished before drug therapy is started. An oral-pharyngeal or endotracheal tube should be inserted to allow for the removal of secretions, prevention of aspiration, and adequate ventilation. The risk of self-inflicted wounds is great and protection of the extremities by using adequate padding on bed rails, et cetera, is necessary.

As always, a few caveats remain. When using a short-acting agent such as diazepam or amobarbital, it is important that, if successful, an adequate amount of anticonvulsant (usually phenytoin or phenobarbital, or both) is administered so that the patient will continue to be seizure-free. Using serum levels of these agents as a guide and aiming for a level in the upper portion of the therapeutic range is the most objective method of judging proper dosage. Be aware that most of these agents may alter findings on the neurological examination, particularly when serum levels in the toxic range occur. The physician should be well versed with the anticonvulsants he is using and be prepared to deal with the drugs' side effects and complications. When the status epilepticus is resolved, maintenance therapy should be started and an exhaustive search for any underlying abnormalities must be undertaken.

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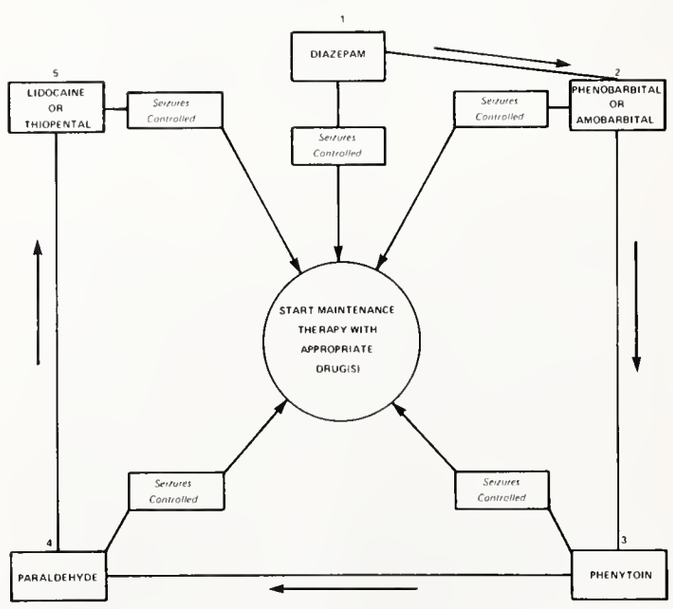
4 Flow model for drugs of choice in generalized status epilepticus. The intravenous route is advised with all of these agents. The experience in using lidocaine for treating status epilepticus is limited. General anesthesia using thiopental sodium should be restricted to those patients in whom all other efforts have proved unsuccessful.



Encephalopathy in the cirrhotic patient

Ned Snyder, MD

The neuropsychiatric syndromes secondary to liver disease are known collectively as hepatic encephalopathy. There are three general presentations of hepatic encephalopathy:

1. It is most commonly seen in patients with chronic liver disease and portal systemic shunting of blood. In this situation, the encephalopathy usually is reversible, and often is called portal-systemic encephalopathy (PSE).
2. Encephalopathy may accompany acute liver failure resulting from viral, drug, or toxin-induced fulminant hepatitis; usually, it is fatal.
3. In patients with long-standing cirrhosis, often those with portacaval shunts, a less reversible syndrome may develop with neurologic symptoms that resemble Wilson's disease or parkinsonism.

There have been significant advances in both the understanding of and therapy for hepatic encephalopathy. This article will deal with the pathogenesis, clinical features, and therapy for encephalopathy in patients with cirrhosis. The terms "PSE" and "hepatic encephalopathy" will be used interchangeably.

Background

The first clinical description of hepatic encephalopathy can be credited to Sir William Shakespeare. In *Twelfth Night*, Sir Andrew Aguecheek, an alcoholic nobleman, exclaims, "I am a great eater of beef, but believe it does harm to my wit!"[1] This is an excellent description of protein intoxication in early hepatic encephalopathy. However, Shakespeare was well ahead of clinical medicine, and it was only two decades ago that the distinct syndrome of hepatic encephalopathy became well recognized.

Clinical Features

There are numerous and varied features of hepatic encephalopathy. With the exception of fetor hepaticus, an inconsistent component of the syndrome, none of the signs are specific for hepatic encephalopathy. In early stages, the principal features are mental dullness and lethargy, which may be more apparent to the patient's family and friends than to the physician. In its earlier stages, hepatic encephalopathy can be misdiagnosed as depression or as some form of dementia. As encephalopathy progresses, confusion and neurologic signs such as asterixis and hyperflexia become more apparent. In the latter stages of hepatic encephalopathy, any combination of neurologic signs may develop, including long tract signs, convulsions, hemiparesis, decerebrate rigidity, and of course, coma. Hypothermia and hyperventilation also are seen often. Patients with PSE can simulate primary neurologic problems such as cerebral vascular accidents or subdural hematoma. Unlike patients with fulminant hepatitis, cirrhotics with PSE rarely exhibit overt psychosis with combativeness and hallucinations.

Pathogenesis

Several substances are implicated in the pathogenesis of PSE in cirrhotic patients, and ammonia (NH_3) is the most important. There are several reasons why ammonia is clearly implicated in the syndrome of PSE: (I) ammonia concentrations are invariably increased in the blood and cerebral spinal fluid of untreated cirrhotic patients with hepatic encephalopathy;[2] (2) the administration of ammonia to experimental animals precipitates encephalopathy; (3) children with enzymatic defects of the urea cycle, such as ornithine transcarbamylase deficiency, develop hyperammonemia and a syndrome similar to hepatic encephalopathy;[3] and (4) treatment aimed specifically at lowering the blood ammonia level usually is succesful in cirrhotic patients with encephalopathy.

Although ammonia can be formed by many tissues in the body, its most important site of formation is the bowel, where it is a product of the bacterial hydrolysis of urea and the deamination of amino acids. Most ammonia is then detoxified by fixation to urea in the liver via the Krebs-Hensleit cycle. In patients with cirrhosis and portal hypertension, not only is the liver sometimes unable to achieve maximum conversion of ammonia to urea. but more importantly, portal venous blood is shunted into the systemic circulation, and potentially toxic levels of ammonia more easily accumulate.

Ammonia probably is not the only substance involved in the production of hepatic encephalopathy. There is not a clear correlation between the level of encephalopathy and the level of ammonia in the cerebral spinal fluid or the blood. Also, some cirrhotic patients chronically have elevated blood ammonia levels, but no evidence of hepatic encephalopathy. Several other classes of compounds have been linked to the production of hepatic encephalopathy. Mercaptans (especially dimethyl sulfide) usually are elevated in patients with hepatic encephalopathy, and they also precipitate encephalopathy in experimental animals. The odor of fetor hepaticus is a result of elevated

levels of mercaptans.[4] Short-chain fatty acids are also elevated in hepatic encephalopathy, and they have been shown to induce encephalopathy experimentally.[5] There is recent evidence that ammonia, mercaptans, and short-chain fatty acids may act synergistically to produce encephalopathy.[6] Certain biogenic amines (octopamine and β-phenylethanolamine) also may be involved in the pathogenesis of hepatic encephalopathy.[7] Like ammonia, these substances are released by the action of intestinal bacteria on ingested protein, and may accumulate in the brain as false neurotransmitters.

Clinically, most cases of advanced hepatic encephalopathy have an identifiable precipitating cause, either nitrogenous or non-nitrogenous. The most common nitrogenous causes include *azotemia*, *gastrointestinal hemorrhage*, *hypokalemia alkalosis*, *constipation*, and *protein intoxication*. The enterohepatic circulation of urea is a source of intestinal ammonia production. Azotemia commonly complicates cirrhosis as a result of the overenthusiastic therapy of ascites, as well as the hepatorenal syndrome. Blood in the colon as a result of gastrointestinal bleeding is another excellent source of ammonia. Hypokalemic alkalosis causes an increase of ammonia in the renal vein, and also causes a shift of ammonia from the extracellular to the intracellular fluid. Constipation and simple excessive protein intake also increase production of ammonia.

The most common non-nitrogenous cause of hepatic encephalopathy is the use of *sedatives* and *tranquilizers*. Most of these agents, including meperidine, paraldehyde, chlordiazepoxide, and diazepam have an increased half life in cirrhotic patients. Their use can precipitate a syndrome in the cirrhotic patient identical to that of nitrogenous hepatic encephalopathy except that the blood ammonia levels often will be normal. *Infection*, especially spontaneous bacterial peritonitis, also must be considered in an encephalopathic cirrhotic patient. In many cases of spontaneous bacterial peritonitis, peritoneal signs and fever are absent, and the onset of the syndrome may be heralded only by encephalopathy. In an ascitic cirrhotic patient with unexplained encephalopathy, a diagnostic paracentesis and blood cultures should be performed to rule out this syndrome.

It is important to recognize that many episodes of hepatic encephalopathy are iatrogenic. In a recent study of 100 consecutive cases, almost one half of the episodes of hepatic encephalopathy were induced by sedatives or diuretics.[8]

Diagnosis

The diagnosis of hepatic encephalopathy is based primarily on clinical evidence. In most instances, many of the typical clinical features are present and the diagnosis is not difficult. Several other diagnoses such as cerebral vascular accidents, subdural hematoma, meningitis or encephalitis, and other forms of metabolic encephalopathy including hypoglycemia have to be entertained and subsequently eliminated.

There is no laboratory test that is specific for hepatic encephalopathy. However, blood ammonia levels and electroencephalography are helpful in confirming the diagnosis. If performed correctly, the blood ammonia levels will almost always be elevated in cirrhotics with untreated nitrogenous encephalopathy. An arterial sample gives a more accurate determination for ammonia than a venous one, since ammonia is extracted from the muscle capillary bed.[9] Specimens should be iced immediately, and the determination performed within 30 minutes. A mildly elevated blood ammonia level in a cirrhotic patient with encephalopathy does not absolutely eliminate nonhepatic causes of encephalopathy; however, a normal level should cause one to search diligently for other etiologies. In hepatic encephalopathy, there is a diffuse slowing of the electroencephalogram. Since other metabolic encephalopathies cause similar changes, this again is not specific for hepatic encephalopathy. However, like normal blood ammonia levels, an EEG demonstrating atypical changes should be a stimulus to search for other explanations of the encephalopathy.

It is important to realize that there is little correlation between results of a cirrhotic patient's liver function tests and the propensity of that patient to develop PSE. Certainly, many patients with PSE have deranged liver function. However, a patient with unimpressive values for bilirubin, serum transaminase, etc, but with advanced *portal hypertension* and portal-systemic shunting of blood can also easily become encephalopathic. The diagnosis of PSE should never be excluded simply because the results of liver function tests look good!

Therapy

The physician is faced with two types of clinical situations in the treatment of a cirrhotic patient with PSE: (1) the therapy for the patient with the recent acute onset of

hepatic encephalopathy, and (2) the development of a rational program for the patient with chronic hepatic encephalopathy. Fig 1 outlines the therapy for acute hepatic encephalopathy. In acute encephalopathy, the most important step obviously is to try to eliminate precipitating causes. If gastrointestinal bleeding has occurred, blood should be vigorously cleansed from the gastrointestinal tract, and appropriate evaluation and therapy begun. Hypokalemic alkalosis should be treated with potassium chloride. All sedatives should be discontinued. Azotemia should be treated by ceasing diuretic therapy and carefully expanding plasma volume. If ascites is present, a diagnostic paracentesis for cells, gram stain, and culture is advisable to rule out spontaneous bacterial peritonitis.

In addition to the correction of possible precipitating causes, efforts are directed toward decreasing the influx of ammonia from the gut into the circulation. Antibiotics have been standard therapy in hepatic encephalopathy for two decades. They decrease the bacterial population of the intestinal tract, thereby decreasing the production of ammonia, as well as other possible contributing compounds such as free fatty acids, mercaptans, and biogenic amines. Neomycin is the most commonly used antibiotic in the treatment of hepatic encephalopathy.[10] It is tolerated well during short-term trials of therapy; however, with prolonged use it can have disturbing side effects which include malabsorption, diarrhea, pseudomembranous enterocolitis, and renal and otic toxicity.

1. Therapy for acute hepatic encephalopathy

1. Elimination of precipitating cause(s)
2. Restriction of protein intake to 20 gm daily.
3. Lactulose, 50 cc every 1-2 hours until two stools, then 30-60 cc every 6 hours, or
   Neomycin, 2-6 gm daily + *cathartic*.
4. Discontinue all sedatives and analgesics.
5. If comatose, infuse 10% dextrose
6. General supportive measures:
   a. correction of hypoxia;
   b. correction of electrolyte abnormalities; and
   c. blood transfusions as indicated.

2. Modified Parsons-Smith criteria.[11]

Grade 0:	No abnormality detected.
Grade 1:	Subtle personality change, trivial lack of awareness, shortened attention span, impairment of addition and subtraction.
Grade 2:	Lethargy, façade of personality present, but confused, obvious personality change.
Grade 3:	Very confused, semistupor or somnolent, gross disorientation
Grade 4:	Coma

A reasonable alternative to the use of neomycin in the therapy for both acute and chronic hepatic encephalopathy is *lactulose* (Cephulac), a nonabsorbable synthetic disaccharide. Lactulose is hydrolyzed by colonic bacteria to lactic and citric acids. The resultant lowering of the intracolonic pH probably traps ammonia in the bowel, and increases the excretion of ammonia in the stool. Lactulose also promotes a catharsis, another beneficial effect in the encephalopathic patient. Several recent control trials have demonstrated the efficacy of lactulose in both acute and chronic hepatic encephalopathy.[11-13] In a multicenter study, lactulose was at least as effective as neomycin plus a cathartic (sorbitol) in the treatment of chronic PSE.[11] In another recent double-blind control study, lactulose and neomycin plus catharsis were found to be equally effective in the treatment of acute nitrogenous hepatic encephalopathy.[12]

During long-term therapy, lactulose appears to be better tolerated, and has fewer side effects than neomycin, and is considered to be the drug of choice for chronic hepatic encephalopathy. For short-term therapy, neomycin and lactulose are equally effective, and either can be considered as the drug of choice. It is not yet known whether a combination of neomycin and lactulose is more effective than one of the agents alone. Since lactulose requires bacteria for its action, it is possible that when it is combined with an antibiotic, there will be an insufficient lowering of the stool pH. However, in uncontrolled trials, these agents have been used together effectively, and this combination versus single drug therapy is being evaluated prospectively in controlled trials.

Other measures also can be employed in the treatment of both acute and chronic hepatic encephalopathy. If the patient is able to eat, *protein restriction* is important. In acute cases, the diet should be restricted to no more than 20 gm of protein daily. In some mild cases, this measure alone will reverse the encephalopathy. In patients requiring long-term therapy, it is not efficacious to restrict protein intake severely unless necessary, and lesser degrees of protein restriction often can be used together with lactulose. If neomycin rather than lactulose is used in the treatment of hepatic encephalopathy, it is imperative that the physician also promote a *catharsis*, since stool is a good substrate for the production of ammonia. In the patient who is unable to eat, the infusion of 10% dextrose can be useful since this will provide a protein-sparing effect.

Numerous other measures have been proposed and attempted in the therapy for hepatic encephalopathy. These include the administration of arginine or glutamic acid, the feeding of *Lactobacillus acidophilus*, L-DOPA therapy, and colectomy. None of these modalities have many current advocates. Radical measures (exchange transfusion, plasmapheresis, charcoal column hemodialysis, and saline washout) proposed for use in patients with fulminant hepatitis have no place in the management of the cirrhotic patient with PSE.

Patients with PSE should be followed closely, in several parameters, to evaluate the therapy objectively. The blood ammonia level, if done properly, is a useful guideline. Changes in blood ammonia level correlate well with changes in clinical status of the patient. Improvement in the *blood ammonia* level often will precede clinical improvement, and, likewise, an increase in blood ammonia frequently precedes clinical deterioration. A daily bedside classification of the patient, utilizing the Parsons-Smith criteria, also is recommended (Fig 2). A simple and quantitative method for the serial assessment of the mental state is the number connection test.[14] If available, the EEG also can be followed.

If a patient with hepatic encephalopathy is not improved in 48 hours, according to the parameters cited, then both the diagnosis and therapy for the patient should be reevaluated. Possible contributing factors and other diagnoses should be researched. If no contributing factors or other diseases have been overlooked, then a change in therapy from neomycin to lactulose, or vice versa, should be strongly considered. Some patients who do not respond to neomycin will improve with lactulose. On the other hand, a small percentage of patients in whom stool pH is not lowered adequately with lactulose would be expected to respond better to neomycin.

Approximately 80% of patients with acute hepatic encephalopathy respond well to therapy. Lack of response often is related to concurrent problems such as severe alcoholic hepatitis, bleeding esophageal varices, or the hepatorenal syndrome. In most patients who respond to therapy, protein intake can be gradually increased and lactulose or neomycin discontinued without difficulty. The mental state, blood ammonia, and number connection test response should continue to be monitored as treatment is liberalized. However, some patients are chronically encephalopathic without therapy and, therefore, require a permanent therapeutic program. In addition, patients who have had several episodes of severe hepatic encephalopathy probably should be maintained prophylactically on lactulose and perhaps mild protein restriction.

Conclusion

Recent years have seen many advances in our understanding of the pathogenesis of, as well as the therapy for, PSE. PSE should be considered in any patient with changes in mental or neurologic status, especially if there is evidence or history of liver disease. The diagnosis is primarily a clinical one, but blood ammonia levels and the EEG also may be useful. Both lactulose and neomycin are effective in the treatment of acute hepatic encephalopathy, while lactulose is the drug of choice for patients who require chronic therapy. The recognition and proper treatment of PSE should improve the survival, as well as the quality of life of patients with cirrhosis.

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Jakob-Creutzfeldt disease: brief review and precautionary measures

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Jakob-Creutzfeldt disease (JCD) is a transmissible dementia similar in pathogenesis to other subacute spongiform encephalopathies such as kuru, scrapie and mink encephalopathy.[1] This progressive disease of the central nervous system presents with marked neuronal loss, myoclonus, and mental changes. Since Jakob-Creutzfeldt disease is transmitted by a slow virus oblivious to conventional sterilization techniques, there is probability of spreading infection in the hospital environment. A review of the pathogenesis and modes of transmission of the major transmissible encephalopathies, as well as JCD, is presented to emphasize the need for careful patient management to reduce the possibility of transmitting JCD between inpatients and members of the health care and research team. Recent observations on the transmissibility of JCD are discussed cohesively. In addition, special precautions are outlined for medical and nursing personnel exposed to patients, and for laboratory personnel handling tissues of patients diagnosed or suspected of having JCD.

Spongiform Encephalopathies

Scrapie

Scrapie, which occurs in sheep and goats, derives its common name from the characteristic tendency of an affected animal to scratch its flanks against fixed objects. As the disease progresses, increased excitability and nervousness develop, followed by incoordination, tremor, gait difficulty, and impaired vision. While scrapie is known to be transmitted from animal to animal, infection through vectors such as mice or other intermediate hosts has been suggested.[1] Infection has been transmitted to a number of experimental animal models with either parenteral or intracerebral injections of brain or other tissues from infected animals.[2] It has been reported that, although conclusive evidence of a virus particle in diseased tissue remains elusive, the infectious process is a slow virus disease distinguished by a long incubation period and a subacute clinical course. Examination of scrapie-infected monkey brains revealed pathology strikingly similar to that seen in JCD.

Kuru

In 1957 Gajdusek and Zigas described kuru, the first reported chronic human disease caused by slow virus infection.[3] As Gajdusek observed the natives of the New Guinea East Highlands, he noted that kuru affected predominantly women and children, onset appeared any time between 4 and 40 years of age, and 50% of deaths in the native community could be credited to kuru. These natives practiced cannibalism and the brains and eyes were delicacies reserved for the women and children. In recent years, cessation of cannibalistic rites has reduced the incidence of kuru in this native population.

Kuru presents with an unsteady gait which is often preceded by headaches and limb pain. In addition, slurred speech, dysphagia, involuntary movements, emotional lability, and dementia may accompany the disease. The name "kuru" translates from Fore language as trembling or shivering, which describes the characteristic tremor frequently observed.

Gajdusek wished to determine whether inoculation of a recipient animal with infected cerebral tissue would induce the disease. After an incubation period of three years, an inoculated chimpanzee developed kuru, demonstrating that the disease is transmitted not only from human to human (through conjunctival, nasal, or skin contamination) but also from human to animal and from animal to animal.[2] Pathological examination of the experimental animal's brain revealed idiosyncrasies characteristic of the spongiform encephalopathies, which show striking resemblance in humans and animals.

Mink Encephalopathy

Mink encephalopathy is putatively transmitted when scrapie-infected sheep carcasses are fed to minks. The corneal tissue of an infected mink can transmit the disease to another animal,[4] and inoculation with infected mink brain produces a disease indistinguishable from experimentally induced JCD.[5]

Jakob-Creutzfeldt Disease

Data on the exact incidence of JCD are not available; however, geographic distribution of cases is worldwide. The only information on prevalence of JCD comes from an Israeli report citing the figure of one case per million population. This study also reported high incidence among Libyan Jews (31.3 per million). This was attributed to their custom of eating eyeballs of sheep possibly affected with scrapie.[6] Rare familial cases have been reported.

Clinical features of JCD include disturbances of higher cortical functions, ie, speech problems, reading and writing difficulty, and left-right disorientation, which usually precede a global dementia. A number of diverse neuro-

logical symptoms are also seen, including gait disturbances, muscle wasting, fasciculations, tremor, parkinsonian features, visual disturbances, sensory abnormalities, and a variety of abnormal movements. A profound psychiatric disturbance can present the initial clinical picture. Some patients suffer from liver dysfunction during the course of their illness. Electroencephalographic findings, although nonspecific, are a valuable diagnostic aid, while biopsy of the cerebral cortex can confirm the diagnosis.[7] Patients die after an illness lasting about one year.[3] The disease can be transmitted to subhuman primates by inoculation with brain material or other tissues such as liver, kidney, spleen, and lymph nodes after an incubation period of 14 to 29 months.[8]

Transmissibility of Jakob-Creutzfeldt Disease

A high frequency of surgical or neurosurgical procedures prior to manifestation of symptoms has been noted in patients diagnosed with JCD.[9] It is not difficult to perceive contaminated surgical instruments as the villains. Kitchen and butchery accidents where possible scrapie-infected sheep or goats are being processed have been suggested as another source of transmittal of JCD in man.[2] The fact that the disease agent inhabits the cornea, optic nerve, and retina, and the similarities between JCD and scrapie tend to support this postulated means of transmittal among Libyan Jews. Eating of bovine brain also has been implicated recently in the pathogenesis of JCD.[10]

An apparent human-to-human transmittal of JCD by corneal transplantation was reported in 1974.[11] A 55-year-old man died of intercurrent pneumonia following a two-month history of dementia and myoclonus. Shortly after that, a corneal transplant was performed from this patient to a 55-year-old woman. Autopsy of the male donor's brain showed characteristic changes of JCD and, 18 months after the transplant, the recipient presented with a neurological illness featuring dementia and myoclonus. Eight months after the onset of symptoms, the patient died and again autopsy revealed changes typical of JCD. Inoculation of a chimpanzee with this brain tissue produced similar pathology in the animal. Interestingly, inoculation material from the same brain, stored in 10% formalin for eight months, produced spongiform encephalopathy in another animal, demonstrating resistance of the transmitting agent to formalin.[12]

Another incident of possible transmittal during neurosurgical procedures was reported by Gajdusek and associates in 1973.[13] A neurosurgeon who frequently performed autopsies died of malignant atrophic papulosis (Köhlmeier-Degos syndrome) with associated neuropathological features of JCD, and his brain tissue produced experimental spongiform encephalopathy in a chimpanzee and a monkey. Gajdusek raised the possibility that the surgeon had contracted the disease during his practice of neurosurgery. Recently, Bernoulli and associates[14] reported transmittal of JCD to two patients, ages 19 and 23, through implanted macroelectrodes which previously had been used in a patient with known JCD. Apparently, sterilization of these electrodes according to the methods normally used for heat-sensitive electrodes was not adequate.

Precautionary Measures

The virus transmitting spongiform encephalopathies are elusively small (will pass through a 220-nm Millipore filter), stable when exposed to chemical assault (formalin, ethylenediamine, and beta-propiolactone), highly resistant to wide-range temperature alterations (−70°C to 121°C) and ultraviolet radiation and ionized radiation.[2]

On the basis of these facts and a review of the literature,[15,16] the following patient care precautions are recommended:

1. Although no case of laboratory infection has occurred in research centers dealing with JCD, it is advisable for persons involved in the care of these patients to wear surgical masks, gowns, and gloves, particularly if direct contact with tissues (such as debridement of bedsores or handling biopsy materials) occurs.
2. No patient with this condition should be considered as a tissue or organ donor.
3. Any surgical procedure performed on a JCD patient should be scheduled as the last case of the day. The operating room floor and any other surfaces exposed to contact with the patient's tissues should be decontaminated with 0.5% sodium hypochlorite. If contamination of the floor or other surfaces is substantial, the operating room should be sponged meticulously with 5% sodium hypochloride.
4. All objects subjected to contact with the patient's tissues should be autoclaved at a temperature of greater than 250°F for at least 45 minutes at a pressure of no less than 20 lb per square inch. If any doubt exists over efficacy of the autoclaving, the duration of the autoclave

cycle should be increased.

5. All disposable materials contacting the patient's tissues should be incinerated.

6. All tissues submitted to pathology or research laboratories should be handled cautiously and labeled as highly infectious.

These recommendations are offered on the theoretical basis that JCD in man can be transmitted through contact with contaminated tissue. Considering the devastating, progressive nature of the disease, such precautions are justified and prudent until further research provides unequivocal evidence that JCD is not transmitted by contaminated tissue.

Addendum

After this article was accepted for publication, D. C. Gajdusek, MD; C. J. Gibbs, MD; D. M. Asher, MD, and associates, published a special article on precautions in Creutzfeldt-Jakob disease in the *New England Journal of Medicine*, (297:1253–1258). We recommend that the readers of *Texas Medicine* also review this article and correspondence to the editor which follows it (N Engl J Med 298:975–976, 1978).

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Colloid cysts: a cause of sudden death and presumed psychophysiologic abnormalities

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Colloid cysts of the third cerebral ventricle have long caused lament among those involved in the neurological sciences. Because of their benign nature, relatively simple documentation, and easy removal, they must be kept in mind constantly when dealing with patients who have unusual and perhaps bizarre neurologic or psychophysiologic complaints. This case is reported as a source of reference and as an introduction to a review of these lesions. We hope, thereby, to alert our colleagues to be on guard for this curable lesion in those patients who persist with complaints of headaches and other unusual or bizarre symptoms which may be mistaken for a psychophysiologic illness.

Case Report

A 42-year-old left handed man was referred to the Scott and White Clinic by his family physician because of headache and recent change in personality. The patient was healthy and had no previous medical or surgical disease. He had worked until about one year before admission, when he began to have headaches described as a diffuse "pressure-like sensation" throughout the cranium. He was not an obsessive-compulsive person and there were no socioeconomic reasons to account for the headaches. They were unrelated to the time of day, were not pronounced on awakening from a sound sleep, and did not disturb his sleep. He was unable to describe any particular exacerbating circumstances or precipitating factors to account for his headaches. They were not constant, but recurred intermittently every week. There were days and even weeks when he had no pain. During the course of the preceding year his headaches had become more pronounced and their frequency had increased. He and his family insisted that the headaches generally had a gradual onset, lasted hours to days, and subsided spontaneously. There were only two occasions (one about four months and another about one week before admission) in which the headaches began precipitously; these episodes were described as "unique," heralded by an intense, bursting feeling of intracranial pain which lasted about one hour and was followed each time by mental disability characterized by lethargy, inattention, and forgetfulness. There was no relationship between positional change and the onset of his headaches. The patient's family described a progressive personality change which was predominantly characterized by a lack of attention to detail, a decrease in both recent and past memory, and a peculiar passivity which made him ineffectual in carrying out his daily affairs. He had been referred to various physicians and eventually a psychophysiologic diagnosis was made. His wife summarized his overall behavioral change by indicating that he appeared "dazed" or "stunned." His normal, outgoing personality changed so that he became aloof and withdrawn, and not infrequently he acted confused. Additionally, he had developed a slight clumsiness in walking and a lack of initiative in voluntary movement.

When examined at our institution this patient was fully alert and oriented. His judgment was unimpaired. His memory for both recent and past events was somewhat depressed. He had a flat affect, but his ability to calculate was normal, though slow. There was a pronounced lack in both spontaneity of speech and motor movement. Results of his cranial nerve and funduscopic examination were normal, as were results of extraocular movements and motor and sensory examinations. Deep tendon reflexes were normal; there were no extensor plantar responses. His coordination was normal. There was a slight ataxia on tandem gait and on turns. Results of the vascular examination were normal. There were no involuntary motor movements. Laboratory investigations revealed normal findings. Plain roentgenograms of the skull and cervical spine were normal. A computerized axial tomogram was performed, which revealed a small lesion in the anterior portion of the third cerebral ventricle, which was not enhanced with intravenous contrast material (Fig 1). A pneumoencephalogram revealed a round mass lesion in the anterior superior portion of the third ventricle. The foramen of Monroe was not obstructed and there was free communication between both lateral ventricles (Fig 2). The patient was taken to the operating room and a right frontal craniotomy was performed (MRS). The foramen of Monroe was identified and was of normal size and configuration. The lesion was seen as the posterior wall of the right foramen of Monroe was retracted. A firm, glistening, round mass was then noted to be impacted into the anterior-superior portion of the third ventricle. The lesion was removed without difficulty. Postoperatively, the patient awoke normally, without any focal neurologic abnormality. Approximately eight hours after surgery he became mentally obtunded and developed a mild hemiparesis (left side) which cleared completely within 12 hours. He was dismissed from the hospital but returned

because of increasing headaches. A repeat EMI scan demonstrated progressive hydrocephalus without other abnormalities. A ventriculo-peritoneal shunt was placed. The patient convalesced satisfactorily, was dismissed, and has continued to do well.

Pathogenesis

The multiplicity of names applied to this diagnostic category reflects the confusion concerning the origin of the cyst or its histogenesis. One encounters such titles as paraphyseal cysts, neuroepithelial cysts of the foramen of Monroe, colloid cysts of the third ventricle, ependymal cysts, epithelial cysts, and choroid plexus cysts. Common to all this terminology is a median embryonal structure in the roof of the third ventricle, a rudimentary anlage to the paraphysis. Though variable and rudimentary, it is constantly present during ontogenetic development. It is a gland without cilia on its epithelium and normally disappears after the fourth gestational month. The paraphysis is variably present in various species of life and its exact functional capacity is unknown.[1]

Sjövall,[2] in 1909, first suggested the paraphysis as the site of origin for colloid cysts of the third ventricle; this concept became widely accepted and the term "paraphyseal cyst" was born. Kapper,[1] after a scholarly review of the development of the paraphysis, concluded that only occasionally are these cysts of paraphyseal origin. It was felt that instead of being of telencephalic paraphyseal origin, most cysts develop from diencephalic ependymal recesses, which become secondarily detached. Others[3] have suggested that the choroid plexus is the site of origin of these cysts, while Shuangshoti and Netsky[4] proposed that they represented a simple folding of the neuroepithelium into or out of the ventricular system of the brain or the central canal of the spinal cord. They believe that these cysts could occur anywhere along the neuroepithelium-lined course of the central nervous system from either choroid plexus or ependyma, both of which are derived from a common neuroepithelium. They further stated that neuroepithelial cysts are more common than is generally recognized, that they may occur at any age, and that most often they are asymptomatic.

During ontogenetic development, the area of the paraphysis also shows ependymal recesses which, as stipulated previously, may become detached and form the starting point of a cystic lesion. The microscopic demonstration of cilia, though difficult, favors an ependymal origin. However, since the choroid plexus epithelium is closely related to ependyma and temporarily shows cilia during development, ciliated cysts may still represent a regressive process in the stroma of the choroid plexus and account for their origin.[5]

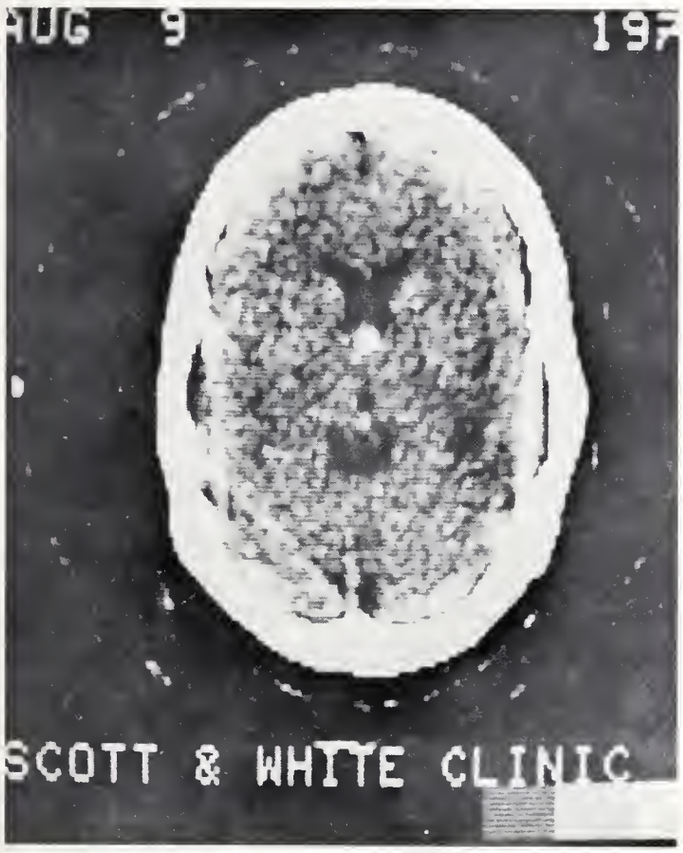
Since ambiguity still remains concerning the origin of this lesion, the term, "paraphyseal cyst," appears to be misleading. The most commonly accepted view regarding the origin of these lesions is that they arise from diencephalic ependymal pouches. Consequently, the descriptive term, "colloid cysts of the third ventricle," seems most appropriate.[6]

Pathophysiology

Because of their location, colloid cysts of the third cerebral ventricle suggested to early investigators that their clinical effect was a manifestation of intermittent acute obstruction to the flow of ventricular fluid. This view was popularized by Dandy,[7] but he postulated further that "it would appear more probable that the sudden change of condition of the body induced a sudden increase in either the venous or arterial (in most cases probably the former) vascular supply of the tumor and its environs, and therefore induced a greater local pressure effect of tumor on the neighboring structures." He felt that this theory would more suitably explain the transient motor, sensory, and visual abnormalities which accompany these lesions. This theory, together with the added postulation of the significance of local trauma, was advocated by Poppen.[8] However, emphasis was placed on the term, "ball-valve action," and most surgeons accepted the theory that movement of the cyst, blocking the foramens of Monroe, represented the pathophysiologic event which initiated the patient's clinical deterioration. This theory has since been challenged, and it has been proposed that the obstruction to the flow of ventricular fluid is caused by the impaction of the cyst in the third ventricle and not simply by the free mobility of the lesion and its secondary blockage of the foramens of Monroe. In our case report the cyst was, in fact, impacted in the anterior portion of the third ventricle. The foramen of Monroe was widely patent, and preoperatively there was symmetric, but minimal, ventricular enlargement.

Brun and Egund[9] reviewed their series of colloid cysts and found a high incidence of aqueductal stenosis in association with this disorder. They postulated that ependymal wall trauma from the cyst itself could lead to the

1. CAT scan demonstrates dense round lesion in the anterior portion of the third ventricle.



2a,b. Pneumoencephalogram demonstrates round mass in the anterior-superior portion of the third ventricle (arrows).

production of cellular debris, lacerations of the periventricular tissue, and even small hemorrhages which could, secondarily, lead to narrowing of the aqueductal pathway or, in fact, its obstruction.

Lundberg[10] had previously demonstrated that "plateau waves," which are seen with continuous intraventricular pressure recordings, frequently manifest themselves by acute transitory symptoms and occasionally by irreversible neurologic damage. He had shown that a prerequisite for these waves to occur was a consistent rise in the mean intracranial pressure and, additionally, that the mechanisms for buffering changes in intracranial pressure and volume variations needed to be compromised. Furthermore, plateau waves are associated with a decrease in cerebral blood flow. On the basis of this information, Brun and Egan postulated that impaction of the colloid cyst in the third ventricle or a secondary aqueductal malfunction (or perhaps both) were responsible for an evaluation in the mean intracranial pressure, creating the dynamic changes necessary for the development of plateau waves and their secondary clinical manifestations. Local pressure effects of the lesion itself (direct trauma or hemodynamic alterations) might act as contributing factors. The sudden onset and transient nature of the symptoms seen with patients harboring colloid cysts were due then to vasomotor phenomenon, leading to rapid changes in intracranial pressure of the plateau wave type. This is an interesting and plausible theory, though its definitive documentation remains to be confirmed in the experimental laboratory. In our patient, the rather characteristic degree of hydrocephalus seen with these lesions was not present, nor was there a large increase in the ventricular fluid pressure. One is left then with the theorization that perhaps in our patient symptoms were more directly related to direct effects of the lesion on surrounding structures together with variations in the hemodynamic characteristics of the tissue surrounding the cyst. Episodes of chronic increased intracranial pressure may have been present with the associated development of plateau wave abnormalities on two occasions, as suggested in reviewing the case report.

Radiologic Investigations

Plain roentgenograms of the skull generally are of little aid in diagnosing colloid cysts of the third ventricle. Generally, there are no abnormal calcific deposits. The pineal gland, when seen, usually is not shifted. With long-standing hydrocephalus one can see erosion or destruction of the dorsum sellae and floor of the pituitary fossa. Cerebral angiography frequently will demonstrate hydrocephalic bowing of the anterior cerebral arteries and, in some instances, elevation of the middle cerebral complex secondary to hydrocephalic dilatation of the temporal horns of the ventricular system.

In the past, air or positive contrast ventriculography, with or without lumbar encephalography, has been the procedure of choice for demonstrating colloid cysts. Here, one can either see symmetric or asymmetric[7,11] ventricular dilatation. The position of the septum pellucidum and the individual sizes of each lateral ventricle are dependent upon the degree to which one or both of the foramens of Monroe are impacted and blocked by the cyst. Not infrequently, some air can be made to pass into the anterior portion of the third ventricle and a portion of the cyst can thereby be outlined. Lumbar air encephalography can be added to supplement the information obtained from ventriculography if positioning maneuvers fail to allow air or contrast material to pass into the third ventricle. With the advent of computed axial tomography of the head (CAT scanning), the radiologic investigation of patients in whom an anterior third ventricular lesion is suspected has been made much easier. CAT scanning is a noninvasive procedure for direct visualization of the brain and related structures. It can show colloid cysts of the third ventricle.[12,13] Since colloid cysts are close to choroidal vessels, the latter may become partially obstructed and engorged because of direct pressure by the lesion. Following the intravascular injection of 60% methylglucamine iothalamate, colloid cysts have been shown to be more dense than before injection with a contrast medium. It has been speculated that this may be caused by the pressure of contrast material in the hypertrophied choroidal vessels, which are in close proximity to the lesion.[13] The radiographic density or absorption coefficient of colloid cysts may be equal to or greater than that of associated brain material. Their increased radiographic density is most likely secondary to elemental metals or organic components (including hemosiderin)[5] having greater density than brain material. Because of the frequent increase in density of these lesions following intravascular contrast injection, computed tomography should be performed both with and without the use of contrast media in any patient in whom a lesion in this area is suspected. The advent of CAT scanning has given the clinician an

additional diagnostic tool for screening patients whose complaints may, on first interpretation, seem to be related to various psychophysiologic reactions. The noninvasive nature of the CAT scan precludes any hesitancy in thoroughly evaluating this patient population.

Discussion

This article reviews the potentially lethal colloid cyst of the third ventricle. Many previous reports have documented peculiar psychologic symptomatology which has, in the past, been relegated to various psychopathologic abnormalities. The data presented herein suggest that in those individuals who present with the complaint of headache and whose histories suggest functional abnormalities, one is obligated to pursue a thorough neurologic investigation. Heretofore, such patients not infrequently have been diagnosed as having psychologic disorders and have been seen as outpatients, frequently on multiple occasions, only to eventually be brought to an emergency facility in an irreparable state of neurologic dysfunction. Furthermore, the socioeconomic aspect of these patients' lives has been disrupted, and it has been implied in various reports that these patients go from physician to physician, seeking medical advice and answers for their debilitating symptoms.

It is hoped that this article will remind all of us to consider this diagnostic category when dealing with the multitude of patients who complain of "headache."[14-17]

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What is right with American medicine

Carlos Pestana, MD, PhD

I have watched with increasing discomfort the mounting attacks on our profession, and I have sensed the impact that such criticisms have on medical students. Today's physicians graduate with acquired collective guilt because their young and idealistic minds are easily receptive to the arguments of our critics. The best graduation gift that I can give these students is my perspective of what is *right* with American medicine.

To present such a defense of today's medicine in this publication might seem as superfluous as preaching about church attendance to those sitting in the church. But many physicians echo the critics of medicine. And not all of them are the stereotyped flaming liberals of academia; many are well-intentioned practitioners who have succumbed to the sheer volume, if not the intrinsic merit, of the critics' arguments. Maybe we should examine those criticisms in greater depth.

Two topics seem to dominate the antimedical repertoire: medicine's preoccupation with treatment, as opposed to prevention, of disease; and the runaway cost of medical care.

Preventive medical care, we are told, would be the answer to all our problems—if it were not for the dark conspiracy of the medical profession that stubbornly refuses to pay attention to it. The subject figures prominently in the interviews with medical school applicants. They say they are going to spurn the money-making ways of their predecessors and stamp out disease before it occurs. As I listen to this accusation and reflect on my own life experiences, I can hardly believe that Americans have the gall to complain about the status of preventive health care in this country.

When I was a child, the fear of acquiring a communicable disease was part of everyday life. A vivid memory illustrates the point: As a boy in the Canary Islands, I used to take a bus from my little town to the capital of the island. The bus ride was a noisy one. People in the Canary Islands speak rapidly and loudly, so the bus was always filled with conversation, laughter, and noise. But then there was a turn in the road, and the bus came in view of a large building on top of a hill. Suddenly there was a perceptible change in mood among the passengers. The laughter died away, there was silence, and people looked fearfully at the building. The building was a tuberculosis hospital, and almost everyone on that bus had a relative, or a friend, or a friend of a friend, whose life was slowly wasting away behind those walls.

I later moved to Mexico, where malaria was endemic, where typhoid fever and brucellosis were rampant, and where, in the state of Chiapas, there were little villages where everyone was blind from onchocerciasis. Still later, I came to the United States, this overdeveloped country where you can drink water from the tap, and where infectious diseases practically have been eliminated, and I am told that there isn't enough being done about preventive medicine in America!

Perhaps what the public means is that a great deal was done about preventive medicine in the past, but nothing is being done about preventive medicine now. Yet, if you look at the facts and figures, that is not the case. A case in point is infant mortality. A few years ago, you read that health care in the United States was disgraceful because infant mortality placed us number 16 in the world. But look at the figures. A couple of decades ago there were 29 deaths per 1,000 live births. By 1970, it was down to 20; two years ago, 16; and last year, 15.

I don't believe that preventive medicine is either dead or at a standstill in America. I think there is another angle.

Preventive care takes two different forms. One type includes those things about which we as individuals don't have to do anything. The sanitary engineers design the water supply system and the basic scientists develop the vaccines. But in the other type of preventive care, individuals have to do something; specifically, change their lifestyles. It is this aspect that has had a notable lack of success in America.

A few years ago, I went to a medical meeting where one of the topics was the American public's perceptions of the role of preventive medicine. A labor leader was the last panelist scheduled to speak. For an hour or two, he sat on the podium in full view of the audience, smoking one cigarette after another. After he had finished a pack of cigarettes, he went to the microphone. Wheezing and coughing, and in a raspy voice, he told the audience of physicians that it was their duty to keep him healthy through preventive care.

This same attitude exists about alcohol and overeating. So, I will have to disagree with the criticism that medicine doesn't do enough about preventive health care. It isn't medicine's fault. It is the public's fault.

The other aspect of health care which bothers the American public is its cost. I don't deny that cost is a significant problem, but the public seems to feel that the runaway cost of medical care is the result of a conspiracy

on the part of the medical profession. There are several facets to this issue.

The public perceives that physicians make too much money. I propose that physicians do not make too much money. My argument is not based on a comparison between the income of physicians and the income of other people who make more money. The point is not how much Barbara Walters gets paid, or how much can be made by playing baseball or practicing law in Washington, DC. The point is: physicians do not enjoy a privilege denied to other Americans in terms of financial reward for the work they do. The key is: *for the work they do*.

To illustrate the point, I made some calculations based on two hypothetical people, both of whom finished high school at the same time. I made one of them study to become a cardiovascular surgeon. I made the other one a plumber.

Then, I calculated how many hours per year the college student worked, and what his or her budget was. The hypothetical student plumber worked the same number of hours, and limited himself to the same expenses to which college and medical students must limit themselves. I did this for a total of 20 years—four years of college, four years of medical school, seven years of internship and residency training, and five years of paying back debts and building up a successful practice.

In each of those years, I had the medical student accumulating debts and acquiring knowledge. The plumber, in the meantime, was accumulating wealth. I was careful to have the plumber pay income taxes every year, and I deducted that from the calculations. He put whatever money he had left into the bank at 8% interest.

At the end of the 20 years, I had the student, now a cardiovascular surgeon, making a net annual income of $100,000. Latest statistics show that only one in eight physicians reaches that level of income, but I picked it because it seems to be a magic number that signifies excessive income.

At the end of those 20 years, the plumber, having worked at union rates, also was making $100,000 a year. Most of it was not from working as a plumber the same number of hours as the cardiovascular surgeon was working; most of it was from the interest on the nearly $1,000,000 that, by then, he had in the bank.

The point I'm trying to make, obviously, is not that most plumbers are millionaires. The point is that anyone who has the discipline to work, and the discipline to limit his expenses in the manner in which medical students work and limit their expenses, can achieve the same level of financial reward in a less glamorous profession.

But it's not only the income of physicians which is bothersome to Americans. Many statements also are made about the cost of health care per se, the cost of what we do to our patients or advise our patients to have done. Some of the statements, I am sorry to say, are really nothing more than catchy phrases or political slogans. There is one that bothers me a great deal. I hear it very often from members of the medical profession who say it with a deeply felt sense of guilt: "Did you know that last year General Motors paid more money for the health care of their employees than they did for steel?"

I see that statement as one of the best examples of the art of the demagogue. We know that an automobile is made mostly of steel, and without thinking about it, we make the mental association that most of the cost of a car must be the cost of the metal. And if health care is now more expensive than that, no wonder that that little Chevrolet you want to buy lists for $6,500. But a regular size American sedan has about two tons of steel in it, which sells for about $70 to $80 a ton. That automobile contains about $150 worth of steel, and all the rest of the price is the cost of the *people* who made that metal into a car.

General Motors actually released the exact cost of health care which is included in the price of each car: $175 out of the $6,500, which is mostly the cost of the people who made the car. When I see the figure in that light, it doesn't sound so outrageous to me.

General Motors released another figure that you never hear anybody talk about. Each car also has $200 worth of complying with government paper work. Not complying with government regulations, not safety equipment, not antipollution equipment, just $200 worth of paper shuffling.

Another statement made about the cost of health care is that it approaches 8% of the gross national product. What I'd like to know is, how much *should* a country spend on health care? Why is 8% an outrageous amount? After all, percentages of the gross national product simply reflect how wealthy a society is. In a very poor country, the gross national product goes for food, clothing, and shelter. There is nothing left for anything else. But, as a society becomes more wealthy, there are more resources left for other services, such as medical care.

Is it that 8% by itself is too much of a percentage, no matter what it might be devoted to? That's not the case either. Many countries, at many times, have devoted a far larger share of the gross national product to a given activity which, at that time, was important for the country. Look at the amount of the gross national product that goes for defense in the Middle Eastern countries; it is much more than 8%. This figure of 8% for health care is simply a manifestation that we give some priority to health care.

But unhappiness with that 8% is compounded by the upward trend of such expenditures. This *is* a serious problem, and a solution is needed. But rhetoric seldom provides the solution. A case in point: We were reminded, not too long ago, by the President of the United States, that health care costs in this country have gone up 1,000% from 1950 to 1977. I'm sure that is true.

But let's remember that the medical care you could buy in the 1950s isn't exactly the same that you can buy today. If, in 1950, you had a heart condition—a bad valve or bad coronaries—you could take diuretics and digitalis for some relief. When those medicines no longer worked, you got short of breath and you died.

In 1978, if you have heart disease, you still can buy diuretics and digitalis at prices that have not even kept up with inflation. The difference is that in 1978, when those medicines stop working, you have a choice. You can get short of breath and die, or you can go to your cardiovascular surgeon and get a new valve put in, or get new coronary arteries—at great cost.

If you had renal failure in 1950, you didn't have to spend any money on your renal failure. You just limited your diet, and when your kidneys could no longer handle the problem, you died. Today, you can go on dialysis or have a renal transplant—at far greater cost.

The point is, there's no use becoming nostalgic about the medicine of 1950 and its price because, although 1950 medicine is available in 1978 at the 1950 price, nobody's buying it.

So, one element in the increasing costs of health care, is the availability of newer and more expensive treatments which are demanded by those who can afford them. In that sense, medicine, by virtue of its spirit of scientific inquiry, has become a victim of its own success, vilified and accused by the same public that demands new miracles because the miracles carry a price tag.

In addition to expensive progress, there is another factor. A factor that was introduced into the equation by the same politicians who now decry the cost of health care. It began years ago as a catchy phrase, a political statement, a slogan tossed around with abandon by those who have not yet learned that there is no such thing as a free lunch. The statement that has reached so deep into the consciousness of the American people that it has become a national commitment: Health care is a right, and not a privilege.

I'm not quibbling with the intent; the intent is admirable. It would be wonderful if health care were a right, and not a privilege. What disturbs me is that this grandiose promise has been made to the American people without thinking about how it is going to be implemented.

A society can make such a commitment if it can afford that commitment. America could easily make a commitment that everybody is entitled to food, and, to some extent, that commitment exists in our society. We don't have people dying of starvation in America as they do in the sub-Saharan countries. Yet, no one would dream of making a commitment in America that everyone is entitled to caviar and lobster every day, because we could not afford that.

In the 1930s and 1940s, it could have been very easy for America to make a commitment that health care should be a right, and not a privilege, because in those days the state of the art was such that you could buy health care for a reasonable amount of money. But when you put together the inevitable fact that the more advanced health care becomes, the more expensive treatment becomes, on one hand, and the commitment on the other hand that this is to be a right for everyone, eventually you are going to reach an intolerable situation.

Within that framework, I believe there is no solution. The possibilities just don't seem feasible. One possibility would be to stop medical research and accept the state of the art as it is today as the final word in medicine. Then, of course, cost would not go up. I doubt that anyone would think of that approach to the problem as sensible.

We could, on the other hand, allow medical research to go on, but suppress and prohibit new treatments that were too expensive. But that solution also would pose a difficult moral dilemma, because we live in a society where different people have different incomes. What would you do about a millionaire, for instance, who was going blind, and somebody discovered a treatment for his blindness that costs half a million dollars? The country could not

afford such treatment for everyone, and thus, it could not be called a health care right for all people. Are you going to say to that millionaire, "Look, with your money you can buy a yacht, you can buy a private airplane, you can buy a country home, but you cannot buy your eyesight. We're going to prohibit you from doing it because we don't have enough money to buy everybody the same thing"? I'm not sure that would be a sensible solution either.

Perhaps the solution will have to be a different commitment to the American public, a commitment which will not be an empty promise that cannot be fulfilled. It will have to be a commitment that is more in keeping with the reality of what the country can do, a commitment to *some level* of health care, as a right. I don't see how the commitment can be open-ended while there continue to be further research and further advances in medicine, with inevitable higher costs. But as long as there is not a politician with enough guts to say that to the American people, medicine will continue to be the culprit that stands in the way of Utopia.

I know that my opinions about medicine are not shared by everyone, particularly young men and women. Perhaps some of them are offended by my statements. I am sure that I disappoint those who tend to look at what is wrong, rather than defend what is right. But I have hope. Our medical school graduates still have some growing to do. Experience and maturity frequently change perceptions and viewpoints.

Winston Churchill expressed it very nicely when he said, "If at age 20, you are not a liberal, you don't have a heart; but if at age 40, you are not a conservative, you don't have a brain."

Carlos Pestana, MD, PhD, Associate Dean for Student Affairs, UT Health Science Center, 7703 Floyd Curl Drive, San Antonio, TX 78284.

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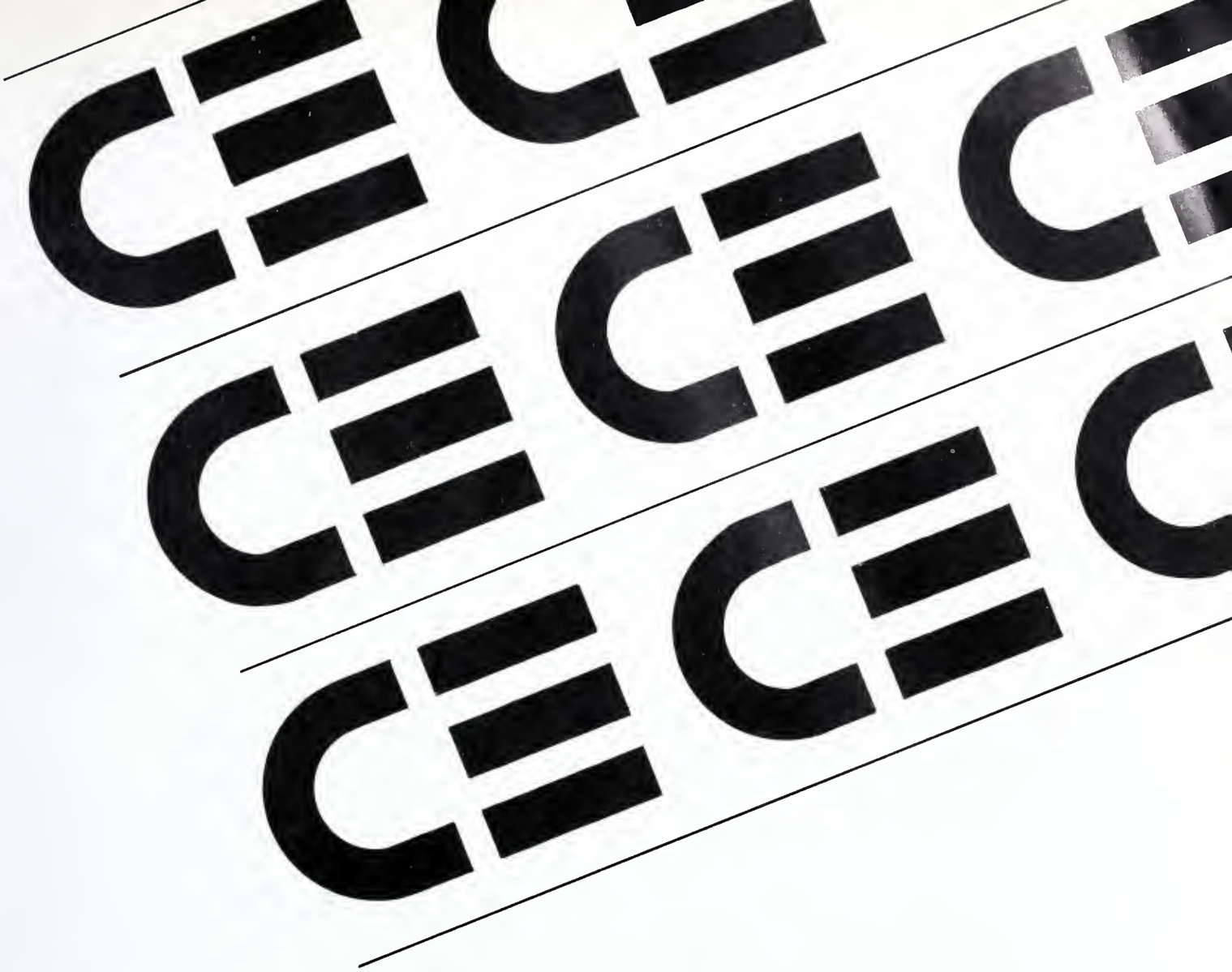

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The staff of TEXAS MEDICINE currently is preparing the 1979 Texas Continuing Education Directory for Physicians. The directory will be mailed to all members of the Texas Medical Association in December to assist them in planning their 1979 continuing education schedule.

If your organization will have one or more continuing education programs during the coming year, you will want them listed. This directory will provide greater publicity to all courses which will be offered in Texas and stimulate greater participation in many programs.

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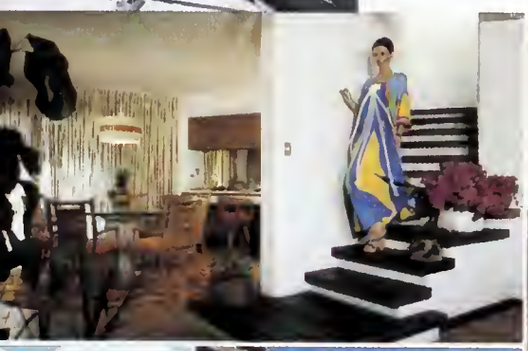

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The bizarre halogen eruption

W. R. Hubler, Jr, MD

The onset of tumorfactive, vegetating or ulcerative cutaneous lesions may indicate a rare delayed hypersensitivity to the ingestion of bromides or iodides. Measurement of serum iodide and bromide levels and histologic examination of tissue are helpful diagnostic measures. Permanent disfiguration and death can occur, but the lesions usually remit spontaneously with discontinuance of the iodide or bromide. Four cases illustrate this rare reaction.

One of the most bizarre cutaneous drug reactions results from halogen ingestion. Halogens may cause many internal and external problems, but the onset of tumorfactive, vegetating or ulcerative lesions is a result of halogen hypersensitivity. The lesions may lead to an erroneous diagnosis of neoplasia or severe infection. Specifically, iodides or bromides can produce lesions in susceptible individuals.

Four case reports illustrate this rare drug reaction. The first case also illustrates clinical problems related to differential diagnoses, an inadequate history of medicinal intake and recognition of psychosocial problems.

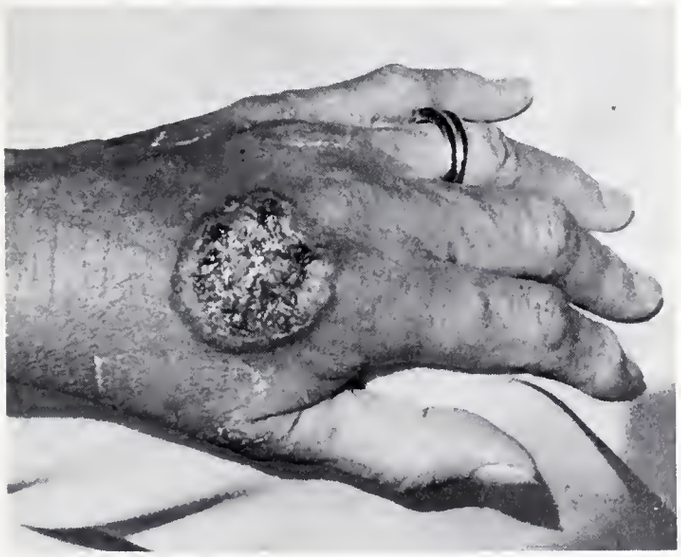
Case Reports

Case 1: In July 1975, a 69-year-old woman presented with an annular, centrally ulcerated 2.2 cm lesion on the dorsum of the right hand (Fig 1) and a similar 1.0 cm lesion of one month's duration on the left hand. The clinical diagnostic considerations included drug allergy (eg, bromoderma or iododerma), infections (eg, North American blastomycosis, sporotrichosis, atypical acid-fast bacterial infection, blastomycocis-like pyoderma, tertiary syphilis and leishmaniasis), granuloma (eg, foreign body granuloma, Hansen's disease), neoplasia (eg, giant keratoacanthoma, squamous cell carcinoma, basal cell carcinoma, sarcoma) and factitial dermatoses. To facilitate a diagnosis, a biopsy was performed.

During the ensuing three weeks, cultures obtained from the biopsy material grew no pathogenic fungi or bacteria. Histopathologic examination of the tissue showed epithelial hyperplasia with a central area of necrosis and nonspecific polymorphic inflammatory infiltrate extending from the surface to the subcutaneous tissue. At the edges of the ulcer, epithelial hyperplasia approached pseudo-carcinomatous dysplasia. Special stains showed no fungal, bacterial or parasitic organisms in tissue sections. No foreign material was demonstrable with polarized light. The biopsy was compatible with a bromoderma.

In August 1975, the lesions became more severe. The largest nodule on the right hand grew to 4 cm in diameter. Since bromoderma was strongly suspected, the patient's psychosocial background was investigated, and a strong relationship between the dermatosis and the patient's personal problems was discovered. For example, the patient's husband had suffered a heart attack one week before an exacerbation of lesions; the lesions cleared

1. The typical lesion of bromoderma is a central ulceration surrounded by a hypertrophic rolled border.



2. A granulomatous iododerma can follow the use of over-the-counter nasal expectorants.

remarkably after the first visit for dermatologic care, despite the absence of specific therapy. The patient suffered a fall in a grocery store which resulted in a damage suit, and the periodic exacerbations of the lesions correlated with pretrial activities. The history of the medication was confusing because the patient would admit only to taking codeine, Valium, and antibiotics, but would not reveal any drugs she previously had received over the counter or by prescription. The psychologic history suggested bromine ingestion or a factitial dermatosis. The serum bromide level was 7 mg/100 ml; normal is 0 to 2 mg/100 ml.

In September 1975, before the diagnosis could be further established, the patient was admitted to the hospital because of an overdose of codeine. The cutaneous lesions were much worse. While the patient was hospitalized, all medication that she received was closely monitored, and within six weeks, the lesions spontaneously cleared, leaving only residual postinflammatory hyperpigmentation. The source of the bromide was never discerned.

Case 2: A 12-year-old patient with trisomy 21 had a 2 cm firm granulomatous lesion of the left arm (Fig 2). It developed over a three-week period. In July 1976, the patient sought medical attention for the nodule. For three years, the patient had suffered nasal congestion and was treated with patent iodide products to mobilize secretions.

Biopsy of the lesion suggested bromoderma or iododerma; protein-bound iodine level was 15 μg/100 ml; serum iodide level was 1.6 μg/100 ml. Discontinuance of expectorants produced spontaneous resolution in approximately three weeks.

As in case 1, the clinical, histologic and laboratory pictures were suggestive, but the discontinuance of the offending medication was diagnostic.

Case 3: A 60-year-old Mexican man presented with a necrotic and granulomatous lesion of the left anterior arm which evolved from a single papule to a 2 cm lesion in approximately six weeks (Fig 3). The patient was in good health, and the lesion was asymptomatic. He was taking digitalis for a heart condition and "tonic" medications from Mexico for nervous tension or sleeplessness. Many of his medications were unlabeled, and all were available over the counter in Mexico. A biopsy of the lesion showed a pseudocarcinomatous epithelium over a central necrotic ulcer and was reported as a bromoderma. There were no organisms visible in the tissue section or on tissue culture. Serum bromide level was 12 mg/100 ml. All medication was discontinued, and the lesion resolved spontaneously without specific treatment in six weeks.

Case 4: A 30-year-old woman developed erythema nodosum of the anterior shin. A thorough systemic workup showed no evidence of sarcoidosis or other specific cause for the reaction. The patient was taking birth control pills, which probably caused the erythema nodosum. The patient discontinued the contraceptive and was treated with a saturated solution of potassium iodide. The erythema nodosum resolved, but a granulomatous lesion of the right distal arm developed in three weeks (Fig 4). A reactive iododerma was the primary diagnosis, and the iodide solution was discontinued. The granulomatous lesions spontaneously resolved in one month.

Comment

Halogens of medical importance include four chemicals —fluorine, chlorine, iodine and bromine. Fluorine compounds are in refrigerants, spray-can propellants, insecticides, rodenticides and toothpaste, and frequently are applied by dentists and added to drinking water supplies to reduce tooth cavities. Chlorine recently has been used as a bactericide and fungicide in swimming pools and drinking water, a bleaching agent, an anesthetic, a solvent and in cutting oils and deodorants. Although fluorine and chlorine frequently are related to the development of acneiform lesions, they usually are not responsible for vegetating lesions.

Iodine and bromine are the usual causes of explosive, bizarre eruptions.[1-4] Iodine is used internally as a radiopaque substance in diagnostic and therapeutic radiologic procedures, as a therapeutic agent for thyroid disease and as a bronchial expectorant. Bromides historically have been a major component of over-the-counter tranquilizers, analgesics, and cold remedies. The use of bromides recently has decreased, but they still exist in some patent products and some antihistaminic and tranquilizing prescription items.

The usual adverse effects of halogens include gingivitis, salivation, rhinitis, headache, gastric pain, respiratory irritation and acneiform eruptions. Known hypersensitivity reactions occur with fever, chills, jaundice, urticaria, angioedema, bronchial spasms, purpura, eczematoid dermatitis and bullous eruptions. The reaction can cause fatalities.[5-7] Granulomatous, tumorfactive lesions are delayed allergic hypersensitivity manifestations of iodide

ingestion. The action of bromide is less clear, but may involve a similar pathogenesis.

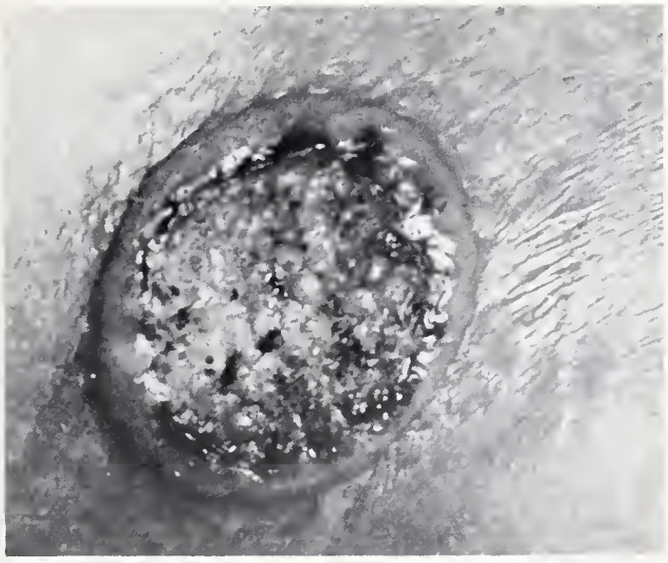
Rosenberg and associates[8] clarified our understanding of vegetating iododerma with a number of specific tests that suggest that an immunologic mechanism causes the lesions. In their report of vegetating iododerma, the patient's lymphocytes in culture underwent blastogenic transformation in response to ^{131}I, which was incorrectly labeled serum albumin. Multiple intradermal skin tests using potassium in saline, human serum albumin plus potassium iodide, and ^{131}I serum albumin were negative. Gel precipitin using the Ouchterlony technique with the patient's serum and antigenic preparations also failed to produce positive precipitation. Indirect immunofluorescent tests using human skin and the patient's serum and indirect passive human agglutination using iodinated ^{131}I serum albumin and tanned red blood cells also were negative. Passive cutaneous anaphylaxis using the patient's serum injected into albino guinea pigs showed no reaction. Therefore, by using a variety of methods, no IgG immunoglobulins were demonstrable either as nonspecific precipitable antibodies or specifically directed against any protein or other chemical moiety found in normal skin. However, the positive lymphocyte transformation test with ^{131}I labeled serum albumin was significant, which probably indicates a delayed immunological mechanism.

These findings suggest that iodides combine with a hapten that may be derived from an epidermal or serum protein. The complete antigen probably stimulates the production of a specific antibody, and the subsequent reaction of a specific antibody to the antigen could produce the lesions.

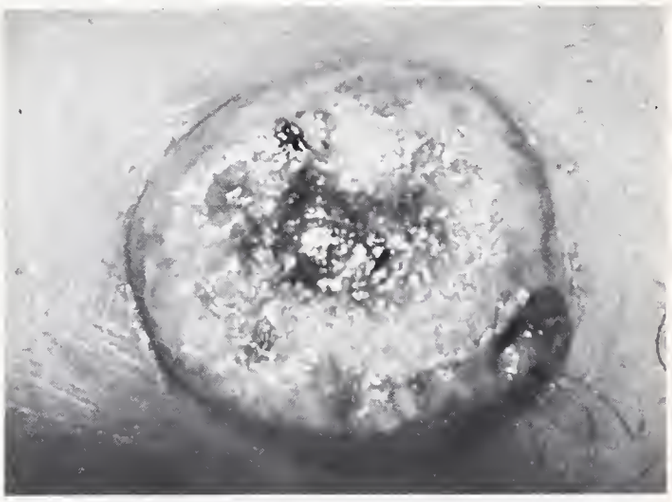
Typically, a patient can take an iodide—or bromine-containing product for a variable length of time (days to years) before presenting with a vegetating halogen-produced dermatitis.[2,8] Bromide and iodide ions can penetrate the placental barrier, and granulomatous lesions have been reported in nursing newborn infants of bromide-ingesting mothers.[5] Acneiform halogen eruptions seem to be unrelated to immunologic hypersensitivity and may result from the drugs' irritating effects on sebaceous glands or ducts during excretion.[9] The irritating effects of bromine and iodine may intensify the immunologic aberrations and produce the localized vegetating dermatitis.

Establishing a diagnosis can be frustrating. Bromides are present only in minute amounts in normal serum; therefore, quantitative tests for bromides can be a helpful guide to the correct diagnosis. The normal serum bromide level is between 0 and 4 mg/100 ml; evidence of a higher bromide concentration indicates that the patient is indeed ingesting the halogen. Laboratory testing in iododerma is more tenuous since many internal disorders or ingested materials can affect the usual tests. The potassium-bound iodine level may be abnormal (as in case 2), but the more specific blood iodine level, normally in the range of 0.3 to

3. Bromoderma can follow the use of tonic medications which are still common in Mexico.



4. Reactive iododerma can be iatrogenic.



8.0 μg/100 ml, is significant. Both tests may indicate that iodines are being ingested, but specific immunologic hypersensitivity mechanisms produce the dermatitis. Eosinophilia usually is marked and may be a supportive diagnostic measure.[10,11]

Biopsy of the lesion also is helpful in diagnosis.[12] Pseudoepitheliomatosis hyperplasia along the edge of the lesion and an ulcerated center are characteristic. A nonspecific inflammatory polymorphonuclear infiltrate often extends from the ulcerated margin to the dermis below the center. Polymorphonuclear leukocytes, dyskeratotic squamous cells, eosinophils and histiocytes penetrate the hyperplastic epidermis and may surround the areas of necrosis. Hemorrhage may be present. Accumulations of mononuclear cells with nuclear degenerative changes and surrounding cytoplasmic haloes associated with eosinophilic dermal acellular masses and edema may be diagnostic.[2] Fungal stains and examination for foreign material should be performed in biopsy specimens with such a histopathology.

Recommended treatment has included steroids,[13] sulfur drugs, diuretics,[14] saline infusions[15] and surgical excision, but the best measure may be supportive therapy that allows time for elimination of the ingested material and recovery of the skin. In the case of iodine, the kidney usually excretes excess iodine within 96 hours of administration, thus rapidly removing the antigens and allowing spontaneous resolution of the lesions in two to three weeks. Bromoderma may be expected to improve after discontinuing the halogen, but excretion of bromides may be slower.

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History of dermatology in Texas

Everett C. Fox, MD

Jesse B. Shelmire, MD, the first dermatologist in Texas, established his office in Dallas in 1895. He received his MD degree from the School of Medicine of Tulane University in 1883 (Louisiana Medical School), and had a two-year internship at Charity Hospital, New Orleans. He was a general practitioner in Zachary, La, for ten years. In 1894, Dr Shelmire moved his family to Dallas, and, after settling them in a home, went to New York for a year of training in dermatology and urology. He was one of the few dermatologists who was a fellow of the American College of Surgeons.

When Dr Shelmire opened his Dallas office, there were dermatologists in St Louis (Joseph Grindon, MD) and New Orleans (Isadore Dyer, MD) and none between; the nearest dermatologist to the west was in Los Angeles.

From 1905 to 1915, Dr Shelmire was professor of dermatology in the Medical Department of Southwestern University. When Southwestern closed in 1915, he became professor of dermatology at Baylor University Medical School. He taught at Baylor until 1927, when he became emeritus professor.

In 1924, he was elected Texas' first member of the American Dermatological Association.

Dr Shelmire was the first specialist in any branch of medicine in Texas. He was a lovable man of high integrity, tireless effort, sincerity and an air of good humor that revealed a tolerant and kindly spirit. He was highly regarded by his patients, friends and medical associates. The father of dermatology in Texas and the Southwest, Dr Shelmire died July 9, 1931, after surgery for a gangrenous appendix at age 73.

The second dermatologist in Texas was Sidney Wilson, MD, who established his practice in Fort Worth in 1910. Dr Wilson was a graduate of The University of Texas and Tulane Medical School (1906). He did postgraduate work in dermatology at Rush Medical School, Chicago, and practiced in Houston before moving to Fort Worth. He was an early member of the Texas Dermatological Society and a charter member of the American Academy of Dermatology. Dr Wilson wrote the first paper on chromoblastomycosis in Texas, and made many contributions on fungus infections and mycology. He received an award of merit from the American Medical Association for his scientific exhibit on fungus infections.

Three dermatologists began practice in Texas in 1920—Jeffrey C. Michael, MD, Houston; Earl D. Crutchfield, MD, Galveston; and I. L. McGlasson, MD, San Antonio.

In 1921, under the leadership of Dr J. B. Shelmire, these men formed the first dermatological organization in Texas. They had biannual meetings in their offices in Dallas, San Antonio, Houston, and Galveston, and presented interesting and unusual cases for discussion. The first meeting was in June 1921. This organization eventually became the Texas Dermatological Society.

Jeffrey C. Michael graduated from Tulane Medical School in 1909 and did general practice in Houston until World War I, when he joined the Medical Corps. He became interested in dermatology, and, at the end of the war, went to New York to study at the Vanderbilt Clinic and with Walter Highman, MD.

When he returned to Houston in 1920, Dr Michael opened his office for the practice of dermatology and was active in the Sections on Dermatology of both the South-

J. B. Shelmire, MD

Jeffrey C. Michael, MD

I. L. McGlasson, MD

Earl D. Crutchfield, MD

ern Medical Association and the American Medical Association. He was, at one time, chairman of each of these sections.

Elected to the American Dermatological Association in 1926, Dr Michael represented the association at the International Dermatological Congress in Budapest in 1935.

Dr Michael was considered one of the brilliant minds in dermatology and contributed many excellent papers. He died in 1936 at age 47.

Earl D. Crutchfield, MD, graduated from The University of Texas Medical Branch, Galveston, in 1918. He previously had taught school and became a persuasive medical teacher. He received his dermatological training at Vanderbilt Clinic and New York Postgraduate Medical School and Hospital. Dr Crutchfield returned to Galveston in 1920. He was the first trained dermatologist in the city and a member of the teaching staff of the Medical Branch. He was active in the Sections on Dermatology of the Southern Medical Association and the American Medical Association and was elected to the American Dermatological Association in 1926. While at the Medical Branch in Galveston, he wrote numerous papers on mycetoma, sporotrichosis, and the use of x-ray and radiological therapy in general in the treatment of skin diseases.

In 1927, Dr Crutchfield resigned from the Medical Branch and moved to San Antonio, where he practiced dermatology and radiological therapy until his death at age 43 in 1933.

Irvy L. McGlasson, the fourth founding member of the Texas Dermatological Society, received his MD from the University of Louisville. He spent several years in general practice, served as quarantine officer in Galveston and studied sanitation in Europe.

In 1919, he opened San Antonio's first dermatology practice. He was one of the organizers and first chairman of the Section on Dermatology of the Southern Medical Association. In 1923, he was vice-chairman of the Section on Dermatology of the American Medical Association. He was elected to the American Dermatological Association in 1924. He introduced both superficial and deep x-ray and radium therapy to San Antonio, and prepared many papers on syphillis, cancer, and x-ray and radium therapy.

His students, patients, and associates recall that Dr McGlasson had an interesting and unusual personality and philosophy. Dr McGlasson died in 1926 at the age of 50.

Cornelius Ferd Lehmann, MD, had joined Dr McGlasson in dermatology practice in San Antonio in 1922. Dr Lehmann was graduated from The University of Texas Medical Branch in 1918, and was Dr Crutchfield's classmate. He had two years of training at Scott and White Clinic, where he became interested in skin diseases and x-ray therapy. After this training, he studied in New York at Vanderbilt Clinic and the New York Skin and Cancer Hospital.

Dr Lehmann had an active practice. He treated many skin cancer patients, wrote papers, and was active in medical organizations. He was an early elected member of the Texas Dermatological Society and a diplomate of the American Board of Dermatology. He was secretary and chairman of the Sections on Dermatology of both the American Medical Association and the Southern Medical Association. He was elected to the American Dermatological Association in 1932 and was vice-president of the Association during 1955–1956.

In 1927, after Dr McGlasson's death, James Lewis Pipkin, MD, joined Dr Lehmann. For a time, the group was called Lehmann, Crutchfield and Pipkin. Ferd Lehmann was a fine man—an excellent physician, dermatologist, teacher, and writer—and was profoundly loved by his family, friends, associates, and patients. He died December 23, 1970.

C. F. Lehmann, MD

Bedford Shelmire, MD

R. Leslie M. Smith, MD

Lewis Pipkin, MD

Dr Pipkin was graduated from The University of Texas Medical Branch in 1926. During his internship at Robert B. Green Hospital in San Antonio, he worked in the Dermatology Clinic and Venereal Disease Clinic under Dr McGlasson. Dr Pipkin received additional training at New York University and Bellvue Medical Complex in 1927–1928. He was elected to the American Dermatological Association in 1950. Dr Pipkin practiced in the same offices that Drs McGlasson and Lehmann established at 714 Medical Arts Building in 1926. The group has been Lehmann and Pipkin; Lehmann, Crutchfield and Pipkin; Lehmann, Pipkin and Reeseman; and Pipkin and Reeseman.

Lewis Pipkin is widely known for his commonsense practice of dermatology. He loves medical meetings, his office, his work, and people. Dr Pipkin combines the big city specialist with the lovable personality and ability of the country doctor.

William F. Spiller, MD, of Galveston, was graduated from The University of Texas Medical Branch in 1911. After World War I, he received dermatology training in New York. He practiced in Galveston and joined Dr Crutchfield at the Dermatology Department of the Medical Branch in 1923. He was chairman of the department from 1927 until 1942. He was a gentle man and his students admired him. Dr Spiller regularly attended meetings of local and national dermatological societies, especially the Texas Dermatological Society. He resided in Waco from 1966 until his death in October 1977.

Bedford Shelmire, MD, joined his father, J. B. Shelmire, MD, Texas' first dermatologist, in his Dallas practice in 1924.

The younger Dr Shelmire attended The University of Texas at Austin, and then the Medical Branch in Galveston. He received his medical degree in 1920 from Columbia College of Physicians and Surgeons. His training included studies at Vanderbilt Clinic and Dr Howard Fox's office in New York and graduate work in Paris and Vienna.

After entering practice in Dallas, Dr Shelmire, like his father, became active in the Department of Dermatology of Baylor College of Medicine and, subsequently, Southwestern Medical School.

He was active in dermatological societies and served as secretary and chairman of the Section on Dermatology of the American Medical Association and as president of the Society of Investigative Dermatology and the Texas Dermatological Society.

Dr Shelmire has been an energetic practitioner, teacher and investigator. He became the recognized master of knowledge of the poison ivy plant and its allergy.

At age 83, Dr Shelmire remains active and interested in dermatology. He attends the office each day and interviews a few old patients with his dermatologist sons Bedford Shelmire, Jr, MD, and David Sutton Shelmire, MD. He can no longer read or recognize his friends until they speak because of long existing retinopathy.

Dr Shelmire remains one of Texas' best trained dermatologists and has received great scientific recognition nationally and internationally. Several Texas dermatologists received portions of their training in Dr Shelmire's Dallas office, which has been at 1410 Medical Arts Bldg for fifty years.

Tom Calhoun, MD, began practice in Dallas in 1924, having trained in St Louis at Barnard Free Skin and Cancer Hospital. He later was joined in the office by his wife, Nina Faye Calhoun, MD.

Leslie McKnight Smith, MD, received his MD degree from Vanderbilt in 1917. He practiced for a few months in Marlin, Tex, before entering the US Navy in World War I. His dermatological training was at Vanderbilt Clinic, the Dermatology Clinic at Stanford Medical School, and the New York Skin and Cancer Clinic, and New York Postgraduate Medical School and Hospital. He received addi-

Everett R. Seale, MD

Everett C. Fox, MD

Arthur G. Schoch, MD

tional training in dermal pathology and mycology in 1931, and was one of the early competent mycologists in Texas.

When he opened his office in El Paso in 1925, Dr Smith was the only dermatologist between Fort Worth and Los Angeles.

He had an active practice in El Paso. He started the Dermatology Clinic at the City-County Hospital and was, for many years, a consultant at the William Beaumont Army Hospital in El Paso. Dr Smith was a fine man and an enthusiastic student of dermatology and mycology. He was elected to the American Dermatological Association in 1940. He died in early 1976, when he was making plans to attend the centennial meeting of the American Dermatological Association.

Porter Brown, MD, established his office in Fort Worth in 1925, after completing his dermatological training at Barnard Skin and Cancer Hospital in St Louis. He started the Dermatology Clinic, Venereal Disease Clinic and Tumor Clinic at the City-County Hospital. He was president of the Tarrant County Medical Society and originated the Society's Gold Headed Cane Award. In 1939, he was president of the Texas Dermatological Society. He died in 1965.

Culver M. Griswold, MD, established his dermatology practice in Houston in 1925, becoming the city's second dermatologist.

Dr Griswold was graduated from The University of Texas Medical Branch in 1923. He was in private practice and was the first clinical professor at Baylor College of Medicine after the school was moved to Houston in 1942.

In 1955, Dr Griswold retired and moved to Crockett, Tex. But his office in Crockett was so popular that he had little time for retirement. Dr Griswold was noted for his contributions to radium therapy for cutaneous malignancies. He died in 1965.

Everett R. Seale, MD, attended The University of Texas at Austin, and UT Medical Branch in Galveston, and received his medical degree in 1925.

He received postgraduate training at John Sealy Hospital, Galveston; the Barnard Free Skin and Cancer Hospital, St Louis; and New York Post Graduate Medical School and Hospital.

Dr Seale began practice in Houston in 1928, in association with Jeffrey C. Michael, MD, and two years later joined C. M. Griswold, MD. In 1934, Dr Seale opened his office in the Medical Arts Building. He entered military service in 1942.

When he returned from military service, Dr Seale became active on the faculty of Baylor College of Medicine. In 1949, he became professor and chairman of the Department of Dermatology. He became emeritus professor in 1963. He developed a recognized program of teaching and research, which has been continued and enlarged by John Knox, MD.

Dr Seale has been active in many medical organizations; he is a member of the American Dermatological Association and was president of the American Academy of Dermatology.

In the early 1930s, several dermatologists began practice in Texas. These included Ben Eppright, MD, N. R. Jackson, MD, and Margaret Schoch, MD, Austin; Arthur G. Schoch, MD, and Everett C. Fox, MD, Dallas; D. Truett Gandy, MD, and Harris Connor, MD, Houston; Earl B. Ritchie, MD, San Antonio and Galveston; and Duncan O. Poth, MD, San Antonio.

In the forties and fifties several more dermatologists arrived in Texas:

Edward Walsh, MD, and William E. Flood, MD, Fort Worth; Maurice Barnes, MD, Waco; Hal McCustion, MD, Morris Polsky, MD, Allen Forbes, MD, and Eugene Schoch, MD, Austin; Shirley Bowen, MD, Houston; J. Gilmore Brau, MD, James Howell, MD, and Earl Loftis, MD, Dallas.

From this point, they arrived rapidly and spread widely over the state.

The early dermatologists all were active in teaching in their local medical schools, hospitals and clinics and actively participated as members and elected officers of local, state and national medical organizations.

They have made contributions to the dermatological literature including radiation treatment of cutaneous malignancies, studies of poison ivy and weed dermatitis, advances in the treatment and management of syphilis, penicillin research, and intensive rapid treatment methods and use of cisternal puncture for outpatient spinal fluid studies. Three have been members of the American Board of Dermatology.

Of these 13 physicians, 9 have become members of the American Dermatological Association, which has a limit of 125 active members, and, since 1876, has a total membership of only 499.

In 1975, there were 225 dermatologists in Texas and six approved training centers, with 50 resident physician trainees. Two additional centers in the process of development will be established in the near future.

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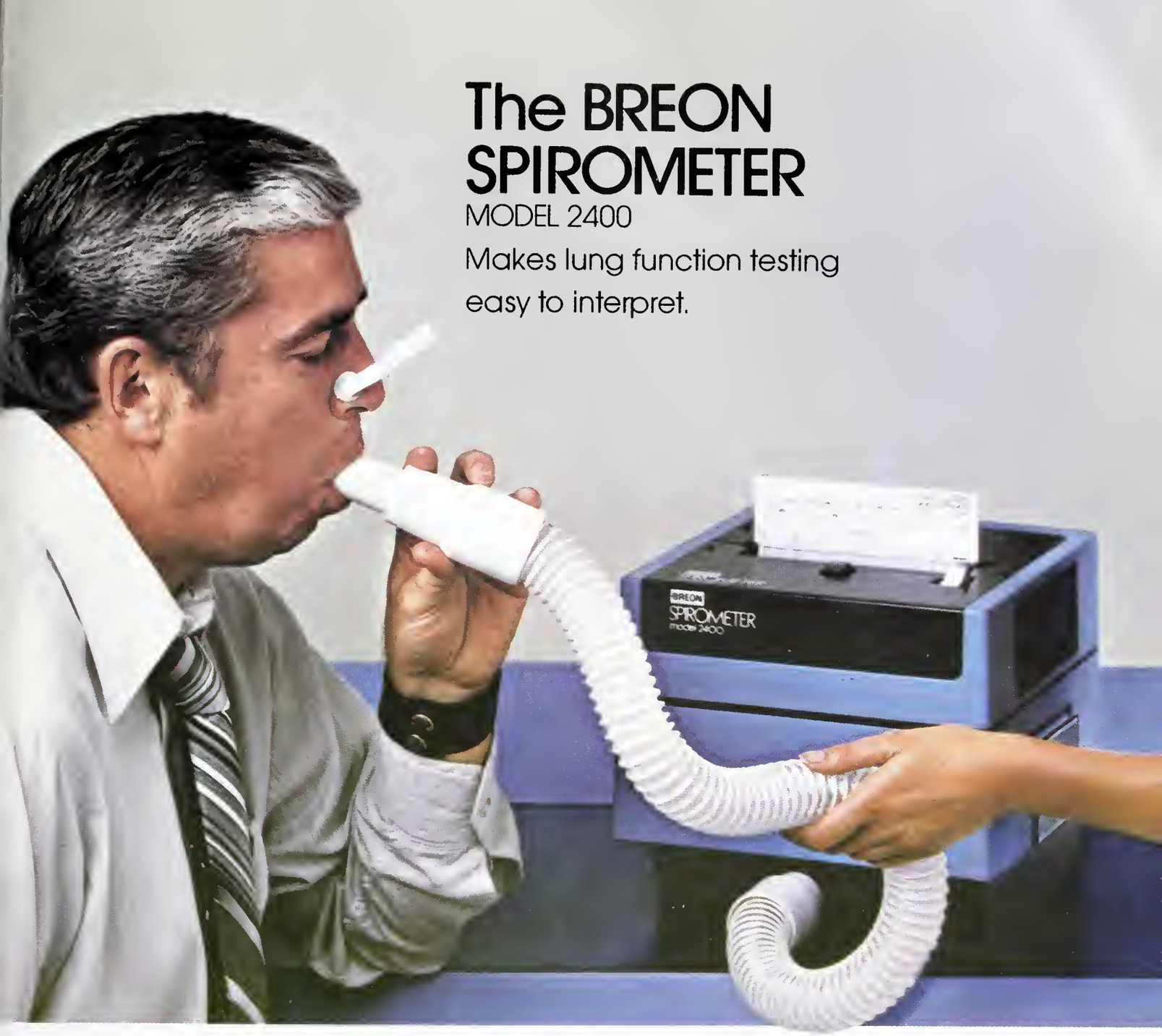

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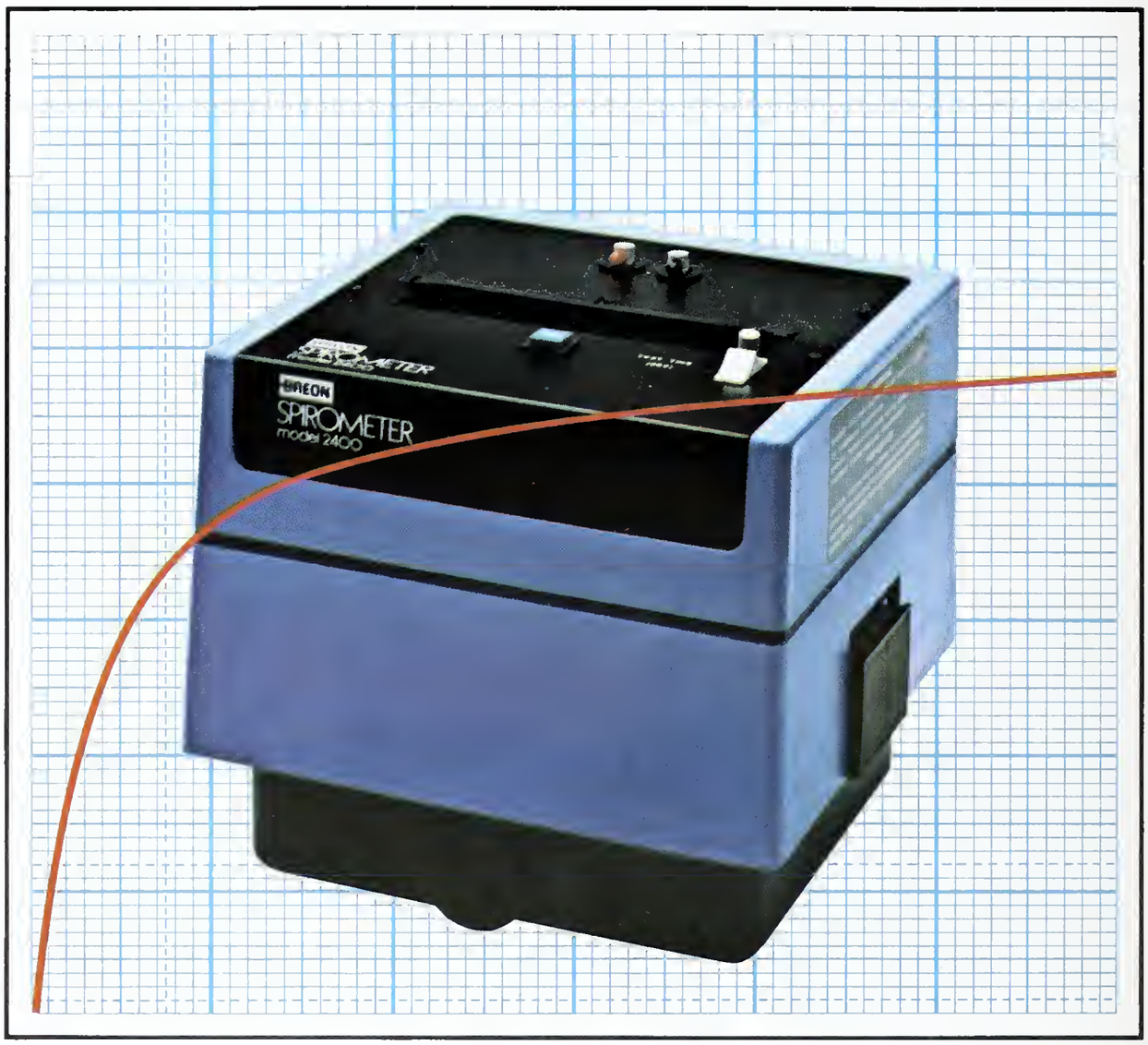

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R.C. CRAWFORD
Longview, 1916–1978

V.J. DONNELLY
Houston, 1910–1978

F.L. DUCKWORTH
Victoria, 1920–1978

B.S. EPSTEIN
San Antonio, 1908–1978

L.D. FARRAGUT
Houston, 1898–1978

F.W. HALPIN
Fort Worth, 1905–1978

F.W. HARTWICK
Corpus Christi, 1903–1978

A. LEYVA
Houston, 1889–1978

J.H. RAY
Kerrville, 1887–1978

S.E. STUART
Dallas, 1908–1978

V.C. TUCKER
San Antonio, 1894–1978

R.W. WARD
Victoria, 1893–1978

R.R. WILLS
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DEATHS

G.E. Bernard, MD

George Edgar Bernard, MD, a member of Bexar County Medical Society, died Feb 27, 1978.

Dr Bernard, 60, had been a resident of San Antonio for 56 years. He was born in San Angelo, Tex, and attended Abilene Christian College. In 1942 he received his medical degree from UT Medical Branch. He interned at Jefferson Davis Hospital, Houston. He served in the US Navy during 1944–1946.

Surviving the physician are his wife, Georgia Lou Bernard, and daughters, Suzanne Mullen, Rebecca Smith, and M'Lissa Bernard, all of San Antonio; sister; niece, and four grandchildren.

R.C. Crawford, MD

Ralph Calvin Crawford, MD, a retired Longview family physician, died Feb 22, 1978.

Born in Rossville, Kan, Dr Crawford was a 1938 graduate of Stephen F. Austin State College and a 1942 graduate of UT Medical Branch, Galveston. He interned at Jefferson Davis Hospital, Houston.

Surviving are Dr Crawford's wife, Mary B. Crawford, Longview; daughters, Mary Jane Jansen and Carol Meador, Dallas, and Jan Crawford, Palo Alto, Calif; and mother.

V.J. Donnelly, MD

Verner Judson Donnelly, MD, a retired Houston physician, died March 26, 1978. Dr Donnelly, 68, was a member of Harris County Medical Society.

A native of Beaumont, Dr Donnelly attended Rice University, Houston, before entering Tulane University School of Medicine, New Orleans. After receiving his MD in 1936, he interned at Scott & White Memorial Hospital in Temple. He practiced in Temple, Plainview, and Bowie, Tex, before moving to Houston in 1954. He was on active duty in the Medical Corps of the US Naval Reserve during 1941–1954.

Surviving are Dr Donnelly's wife, Amelia Boriskie Donnelly, Houston; and daughters, Mrs John E. Carter, Cypress, Mrs Tom P. Roper, League City, and Mrs Timothy V. Soileau, Houston.

F.L. Duckworth, MD

Frederick Lindsey Duckworth, Jr, MD, a Victoria anesthesiologist, died May 6, 1978. Dr Duckworth, 57, past president of Victoria-Calhoun-Goliad County Medical Society, was treasurer of that organization at the time of his death.

A native of Monroe, La, he attended Monticello, Ark, public schools, Arkansas A&M College, and the University of Houston. He was graduated from the University of Arkansas Medical School in 1952. His internship was at Santa Rosa Medical Center, San Antonio, and his residency was at UT Medical Branch, Galveston.

Survivors include his wife, Helen Wortman Duckworth, daughter, Susan Rae Duckworth, son, James M. Duckworth, Victoria; and a sister.

B.S. Epstein, MD

Bernard Sarai Epstein, MD, 70, a San Antonio radiologist, died May 5, 1978. Dr Epstein, a member of Bexar County Medical Society, was associated with the Veterans Administration Hospital.

A native of Brooklyn, NY, Dr Epstein was a 1938 graduate of City University of New York and a 1932 graduate of the University of Rochester School of Medicine. He interned at Jewish Hospital and Medical Center of Brooklyn and Montefiore Hospital and Medical Center, New York. During 1954–1975, he served as director of the department of radiology at Long Island Jewish Hospital. He was past president of the New York Roentgen Society.

Dr Epstein is survived by his wife, Catherine Reiser Epstein, Queens, NY; daughters, Alice Pomper, Middletown, Conn, and Jo Ann Rubin, Chapel Hill, NC; and son, Richard Epstein, Chicago, Ill.

L.D. Farragut

Loyall David Farragut, MD, an honorary member of Texas Medical Association, died April 22, 1978 in Houston.

Dr Farragut, 79, served as Chief Health Officer for Harris County for 25 years. He was a native of Pascagoula, Miss, and received his medical degree from Tulane University School of Medicine (1928). His internship was at Hotel Dieu Hospital, New Orleans. In 1940 he received his master of public health degree from Johns Hopkins University.

Surviving are Dr Farragut's wife, Rosalie Farragut, Houston; four sisters; and a number of nieces and nephews.

F.W. Halpin, MD

Frank William Halpin, MD, a long-time Fort Worth physician and honorary member of Texas Medical Association, died April 16, 1978. Dr Halpin, 72, was a member of

Tarrant County Medical Society.

A native of England, Dr Halpin attended Michigan State University and received his medical degree from Wayne State University College of Medicine, Detroit. In 1930 he moved to Dallas to serve an internship at Parkland Memorial Hospital and residency at St Paul Hospital. He practiced medicine in Jacksboro, Tex, before beginning his practice of internal medicine in Fort Worth in 1934. He completed postgraduate study at the University of Pennsylvania in Philadelphia in 1937.

Dr Halpin is survived by his wife, Mary Lucas Halpin, and son, Frank W. Halpin, Jr, Fort Worth; and a brother.

F.W. Hartwick, MD

Fred Walter Hartwick, MD, a retired Corpus Christi surgeon, died April 9, 1978. The 74-year-old physician was a member of the Nueces County Medical Society.

Dr Hartwick, a native of Detroit, had practiced in Corpus Christi since 1947. He was a graduate of Johns Hopkins University (1926) and Johns Hopkins University School of Medicine, Baltimore (1930). He interned at Johns Hopkins Hospital, Henry Ford Hospital, and Woman's Hospital, Detroit; and in the US Air Force.

Surviving Dr Hartwick are two cousins.

A. Leyva, MD

Angel Leyva, MD, a long-time Houston resident, died May 6, 1978. A member of Harris County Medical Society, Dr Leyva, 88, was the first Spanish speaking physician in Houston, practicing from 1926 until his retirement in 1970.

A native of Puebla, Mexico, Dr Leyva was graduated from Escuela Libre de Homeopatia del Estado de Puebla, Mexico, in 1916.

Surviving the physician are his wife, Refugio R. Leyva; son, Angel Leyva, Jr; daughters, Gloria Davenport, Alice Geyer, and Graciela Ramirez, all of Houston; several nieces and nephews; seven grandchildren; and one great-grandchild.

J.H. Ray, MD

James Henry Ray, MD, Kerrville, a retired eye, ear, nose and throat specialist, died Feb 9, 1978. He was 90.

Dr Ray was an honorary member of Texas Medical Association and a member of Dallas County Medical Society. He attended Southwestern University, Georgetown, Tex, and was graduated from the University of Illinois College of Medicine, Chicago, in 1917. After completing an internship at Parkland Memorial Hospital, Dallas, he practiced in Denton; Monterrey, Mexico; and Dallas before moving to Kerrville.

Surviving Dr Ray are his wife, Nellie Ray, Kerrville; sons, James N. Ray, Los Angeles, Ben B. Ray, Fresno, Calif; and William Henry Ray, Kerrville; daughters, Martha Moore, Dallas; Ruth Ray Sathre, San Antonio; Mary Ray Morgan, Houston; and Betty Wright, Denton; one brother; 27 grandchildren; and 15 great-grandchildren.

S.E. Stuart, MD

Samuel E. Stuart, MD, 70, died April 3, 1978. Dr Stuart, an honorary member of Texas Medical Association and Dallas County Medical Society, had been president of the medical staff of Methodist Hospital, Dallas, for two years.

A native of Lancaster, Tex, Dr Stuart was a 1930 graduate of Texas Christian University and a 1933 graduate of Washington University School of Medicine, St Louis. After completing an internship at St Louis City Hospital, he began a general practice in Dallas in 1935. During World War II, he served in the US Army Medical Corps in the South Pacific. He was the deputy chief surgeon for the South Pacific Theater and was the recipient of the Bronze Star Medal for meritorious service.

Dr Stuart is survived by his wife, Lois Wood Stuart; sons, Doss Allard and Don Allard; daughter, Jane Stuart Els, all of Dallas; and two granddaughters.

V.C. Tucker, MD

Victor Carroll Tucker, MD, a long-time San Antonio physician, died April 29, 1978. Dr Tucker, 83, was past president of Bexar County Medical Society.

Dr Tucker was born in Blanket, Tex. He was a graduate of The University of Texas, Austin, and UT Medical Branch. His internship was at Robert B. Green Memorial Hospital, San Antonio.

Survivors include his wife, Gertrude P. Tucker; sons, Lewis E. Tucker, MD, and Allan C. Tucker, all of San Antonio; and two grandchildren.

R.W. Ward

Rawley Watt Ward, MD, 85, an honorary member of Texas Medical Association, died April 26, 1978. The retired Victoria physician was a member of the Victoria-Calhoun-Goliad County Medical Society.

Dr Ward was born in Victoria and was graduated from the University of Louisville School of Medicine in 1915 and the Army Medical School, Washington, DC, in 1918. After serving in the Army Medical Corps from 1917 until 1920, he returned to Victoria to begin his practice.

Surviving Dr Ward are his wife, Madeline Major Ward, Victoria; sister; brother; two nieces; and a nephew.

R.R. Wills, MD

Ralph Raymond Wills, MD, a retired Hereford family physician, died March 22, 1978. He was an honorary member of Texas Medical Association and past secretary of the Randall-Deaf Smith County Medical Society.

Dr Wills, 76, was born in Bruceville, Tex, and received his BA degree from Baylor University, Waco. He was graduated from Baylor University College of Medicine in 1927 and interned at Robert B. Green Memorial Hospital, San Antonio. He had practiced in Hereford since 1935.

Surviving are Dr Wills' son, J.B. Wills, San Pedro, Calif; one brother; and one sister.

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Indications: Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

Important Note: When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

Contraindications: A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

Warning: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

Precautions: The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

Adverse Reactions: Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

Usual Dosage: Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

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2. He drinks faster than those around him. As a natural consequence, he becomes "drunk" more often than others.
3. Now he "has a few" before the party, or orders doubles. He has developed the addicts' classic tolerance for the drug. Drinking more and more, he experiences temporary amnesia.
4. He begins to find himself drunk nearly every time he drinks. The social consequences of drinking are now causing noticeable problems in his work and relationships.
5. He then loses the ability to control his drinking. He drinks until he can drink no more, and sometimes goes on weekend binges.
6. Eventually early morning drinking becomes necessary. He now begins to hide his dependence — and his bottles.
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9. With this deterioration comes brain damage sufficient enough that less and less alcohol is needed to induce intoxication. At this stage, his tolerance plummets greatly.
10. Liver damage is now severe, due to the toxic effects of the alcohol, inadequate diet and, some research indicates, the inability of the alcohol-ridden body to absorb vitamins. The cardiovascular system deteriorates.
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Sunday, September 24, 8 am–1 pm
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LETTERS

Take time to say, "Well done"

Editor's note: The following letter was written to Philip S. H. Hughes, MD, San Antonio, with a copy to the Texas Medical Association. It is published with permission from Dr Hughes, Ms McDaniel, and Mr Uzzell.

Dear Dr Hughes:

Far too often, each of us fails to take the time to recognize someone for his/her job performance and abilities. You have in Katherine McDaniel a candidate worthy of such recognition.

During the time that I have been your patient, Katherine has always handled herself in a personable and professional manner. Besides being extremely helpful and competent in all appointment scheduling, bill payment, and insurance matters, she is a diligent worker.

As you are no doubt aware, the current trend in the medical profession is for the patient to pay for services performed at the time of his office visit and be reimbursed by his insurance carrier. It is understandable that doctors and dentists want to improve their cash flow; however, most of them do not appear to be concerned about improving their patient's cash flow by the prompt filing and refunding of insurance payments. Most doctors and dentists treat this aspect of their practice as a one-way street in favor of themselves. Indeed, few doctors will even file an insurance claim for one any more. This leaves the patient with the impression (right or wrong) that doctors are so profit conscious that they try to squeeze every penny out of the office visit charge; this strikes the patient as a direct refusal to dedicate a nominal portion of the charge to insurance preparation costs.

My family, perhaps, is a more frequent user of the medical community than most. Katherine is the only "front office assistant" that I have encountered who is truly concerned with the patient's inherent right to receive insurance reimbursement as quickly as possible. She has always made it a point to file my claims the same day of my office visit; and, if through error, the insurance carrier made the reimbursement payable to you rather than to me, then she has mailed me a check on the same day the erroneous reimbursement was received by your office. To contrast Katherine's efficiency with other receptionists, I have waited as long as two or three weeks just to get a claim filed with my carrier and then experienced a similar delay in receiving a refund in the event of an erroneous carrier reimbursement. One of the most frequent excuses I hear for late insurance filing and reimbursement (especially from various medical laboratories) is that "the computer made a mistake." Trying to blame some human failure on an impersonal computer is a poor ploy at best. I have never received any such excuses from Katherine.

In my judgment, you have recognized one of the areas most often neglected by doctors—quality right hand assistants; a doctor can graduate from the most renowned medical universities and have the most impressive personal credentials in the world, but without qualified office help to serve as an extension of himself, patients tend to leave his office with a "sour taste in their mouths." You should be congratulated for employing such a unique person and blending her into your practice.

If the medical profession has an award for "Receptionist of the Year" similar to the "Secretary of the Year" award, Katherine should be nominated for it. She is truly "one in a million."

Dennis Uzzell, San Antonio.

Scoliosis

Dear Ms Baker:

My congratulations on the excellent article on scoliosis by Dickson and Erwin in the May issue of *Texas Medicine*. This is one of the most concise and lucid treatments I have read on what has always seemed a complex, difficult, dull subject to me. Thanks.

James A. Cunyus, MD, Austin.

EDITORIALS

Voluntary hospital cost containment in Texas

The health care industry has been catapulted into the active political arena, resulting in continuous and increasing questioning of government and health care leadership. Both groups are facing serious problems in credibility, evolving regulatory mechanisms, and cost containment. Governments, especially the federal government, have responded by creating new agencies and increasing the number of costly regulatory schemes. Hospitals have responded in many ways.

The net result of these actions and reactions is a widening of the credibility gap between the health care field, governments, and the public.

Health care in general has the image of being unnecessarily costly. One only has to read any of three studies by industry groups* to see the disenchantment of industry, which is one of the publics we must satisfy. The following quote sets industry's tone regarding primary and institutional care:

> The quality and availability of hospital and other bed care services are, like primary care, inadequately matched to the nation's needs; and hospitals tend to be poorly managed and overused. These deficiencies account for a major portion of high and rising health care cost.†

Governmental restrictions designed as remedial action have increased the negative images. Images of overgrown, inefficient, and bickering bureaucracies and wasteful management by health care leadership are depicted. Basic to this problem is cost containment, but perhaps overshadowing cost containment is the need to eliminate or reduce the current credibility gap.

An accountable image and financial stability are possible using developed research findings translatable into operational realities. All this is possible without the formation of new governmental agencies or the creation of additional administrative controls, or both. The framework for this exists and is in a form that will furnish a basis for accountability to our consultants.

Texas hospitals, including their medical staffs, have long been aware of escalating health care costs. Their favorable reaction is indicated by the fact that Texas hospitals' costs consistently have been below national averages. Hospital costs are currently more than 30% higher nationally than in Texas. In spite of this accomplishment, there is an increased willingness of enlightened, aggressive leadership to reexamine business concepts, methodologies, and accountability with a view of adoption or adaption to the health care field.

In 1975, the Texas Hospital Association created the Statewide Hospital Productivity Center to expedite implementation of accepted cost saving managerial techniques, improve the hospital image, and provide meaningful reporting to the public. The initial programs are management engineering and reporting, best methods, health manpower resources, group purchasing, and shared collections. After 30 months of operation, more than two-thirds of Texas hospitals are participating in at least one of the programs. Substantial cost savings can be demonstrated to communities, consumers, patients, hospitals, and third party payors.

The savings or cost reductions reported here withstand the most rigorous financial audit. These represent direct, measurable savings.

Annual savings already accomplished are $96 million.

Savings already accrued to the federal government annually are $32 million.

Under this approach, savings are: (1) measurable, (2) immediate, and (3) immediately affect the federal and state governmental savings in the form of reduced *per diem* costs.

Underutilization of rural hospitals, caused to some degree by restrictive federal requirements, is another problem. In Texas, of the 493 community hospitals, 352 (71.5%) have less than 100 beds. These 352 hospitals make up approximately 20% of the nation's small hospitals, and more than half of them are in rural areas. These rural areas, covering 93% of the state's area and containing 24% of its population, encompass varying sizes of communities, hospitals, distances from supporting services, and staffing ratios.

Since there are so many hospitals in rural areas that may be underutilized, they may be operating because they fulfill a human need for local medical care. Because many rural hospitals are not fully utilized, administrative and regulatory requirements make unused beds and skilled personnel costly. Many of the rural hospitals with less than 100 beds and less than 80% occupancy may

* The US Chamber of Commerce, the Committee for Economic Development, and an ad hoc committee brought together by Gov Nelson Rockefeller of New York.

† Industry Roles in Health Care, the Conference Board, Inc, 845 Third Ave, New York, NY, p 3

have excess staff and facilities available for other uses. Any increase in revenues from such utilization would be a financial asset to the hospital and an overall gain for the community. Filling more beds with new types of patients could increase the services available to skilled nursing patients and reduce the costs per case for acute care patients.

The Texas Hospital Association entered into a contract with the Social Security Administration to try and increase the utilization of smaller rural hospitals by admitting skilled nursing care patients, simultaneously reducing the cost of acute care and increasing the availability of skilled nursing care in rural areas.

This project has been a major effort by the individual physician. To date this experiment has reduced the cost per day of acute care by 50¢ to $1.75 and increased the availability of skilled nursing care. These voluntary efforts, which have included almost the entire health care sector of Texas, have been successful.

Although the health care industry cannot expect to escape criticism, these efforts have assisted in containing costs, and they stand in rebuttal of allegations of empire building and selfishness by hospitals and their medical staffs.

Sam A. Edwards, PhD, Austin, Vice President Research and Development, Texas Hospital Association.

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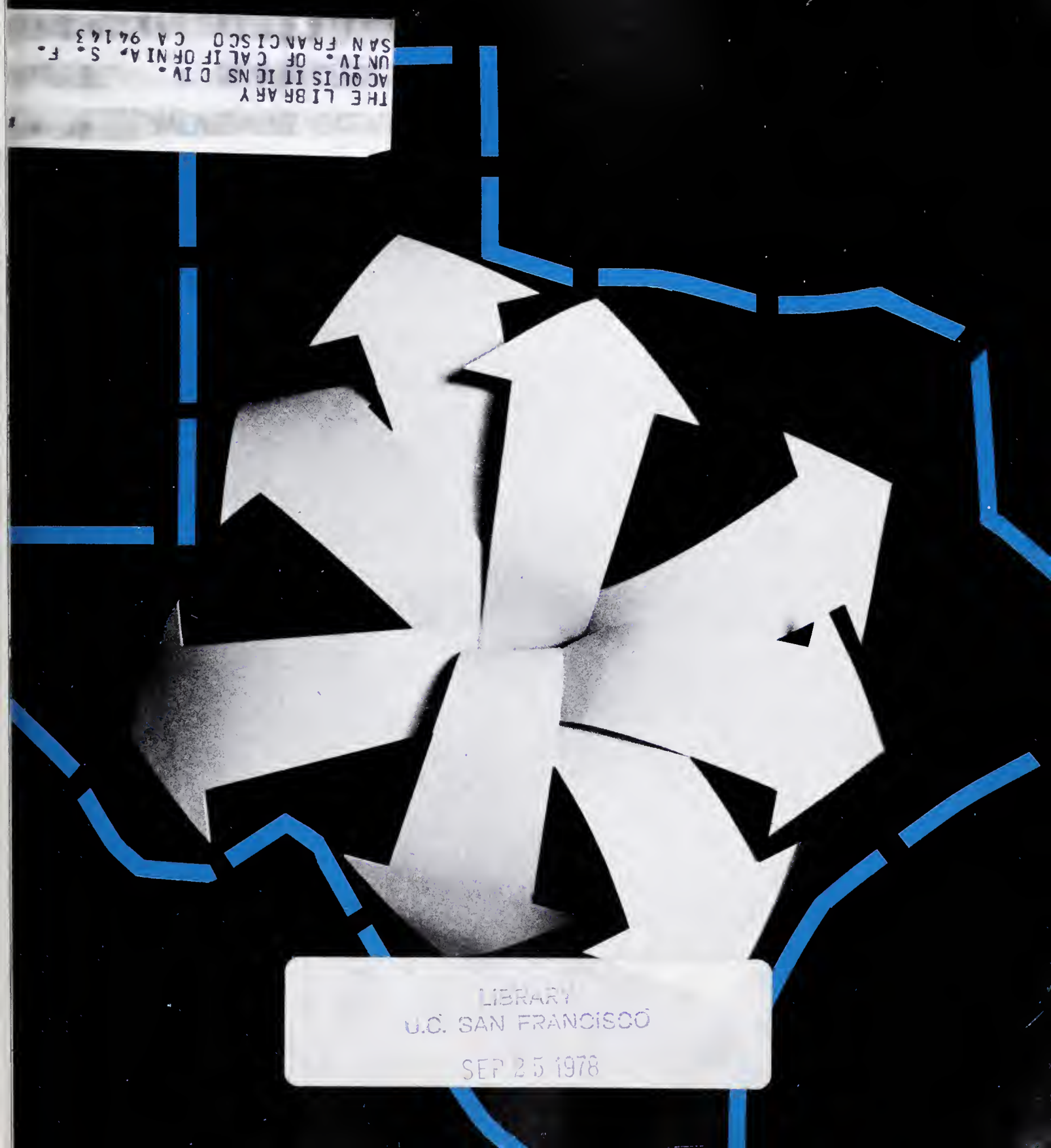

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Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

Texas Medicine
VOL 74
SEPTEMBER 1978

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On the cover

After more than five years of negotiations, talks, and plans, Texas has become the only populous state to be designated as a single professional standards review organization (PSRO) area.

Throughout the five years, HEW had insisted the state should be divided into nine PSRO areas. More on page 24.

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Indications: Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

Important Note: When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

Contraindications: A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

Warning: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

Precautions: The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

Adverse Reactions: Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

Usual Dosage: Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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‡Maximum absorption occurs when Tegopen is taken on an empty stomach, preferably 1-2 hrs. before meals.

Please see brief summary for prescribing information.

TMA conference will highlight medical issues

TMA's 1978 Conference on Medical Issues will highlight voluntary cost containment and cost effectiveness, trends in continuing medical education, implementation of a statewide Texas professional standards review organization (PSRO), and issues in health planning.

TMA boards, councils, and committees will meet Sept 22, 23, and 24 in Austin. Registration for the conference program begins at 8:30 a.m. Saturday, Sept 23, at the Joe C. Thompson Conference Center in Austin.

Speakers and topics for the opening session of the Saturday conference include Mylie E. Durham, Jr, MD, TMA president; Robert B. Hunter, MD, chairman of the AMA Board of Trustees, voluntary cost containment and cost effectiveness; Betty Jane Anderson, JD, AMA assistant general counsel, assault on professionalism; and Jackson W. Riddle, MD, director of the AMA's division of educational policy and development, trends in continuing medical education for physicians.

The second morning session will begin with a talk by William F. Ross, MD, president-elect of the Texas Institute for Medical Assessment, on implementation of a statewide Texas PSRO. Other speakers include John M. Smith, Jr, MD, voluntary cost containment in Texas; C. Lincoln Williston, TMA executive director, representing the physicians of Texas; Donald M. Anderson, TMA director of the Department of Government Health Programs, issues and concerns in health planning; and Milton V. Davis, MD, chairman of the board of governors of the TMA Health Care Liability Claim Trust, self-insurance trust for professional liability.

The afternoon session will include presentations by Charles H. Wilson, MD, TEXPAC board chairman, on the November elections; Sen John Tower on an appraisal of the 95th Congress; and Harry N. Peterson, MD, secretary of the AMA Council on Legislation, on medical and health issues in the 95th Congress.

A luncheon will be served to all conference participants Saturday compliments of the Texas Medical Association.

Sessions on orientation and communication are also planned for Saturday afternoon.

TMA will also sponsor a scientific program in conjunction with the conference. Postgraduate courses, offering hour-for-hour credit in Category 1 of the AMA Physician's Recognition Award Program, are scheduled for Saturday and Sunday, Sept 23–24, at the Austin Marriott Hotel.

Sen John Tower

Robert B. Hunter, MD

Jackson W. Riddle, MD

Insurance trust will send offers in September

Complete information on participation in the Texas Medical Liability Trust will be sent to all Texas Medical Association members in September. The offering packet will describe the trust and include applications for coverage.

Creation of the physician-directed insurance trust to provide professional liability insurance to physicians was approved by the TMA House of Delegates at its Annual Session in May.

Creation of the trust followed a feasibility planning study by the Texas Medical Association. Between February 1978 and April 1978, a TMA ad hoc committee working with American Health Systems, San Francisco, Calif; TMA legal counsel; and TMA staff members made an in-depth study of the feasibility of establishment of a trust.

The professional liability insurance will be available only to members of TMA who meet the underwriting standards of the trust. Coverage is included for TMA members who have segments of their practices in other states.

Cost and coverage for the trust will be determined by risk rating techniques considering the type of practice, location, and claims experience. A broad range of policy limits has been determined to be feasible, and protection will be based on the incidence of occurrences rather than on the time of suit or other legal actions. Initially, a seven-level risk classification system will be used to provide more equitable allocation of risk.

The cost to participants will include a one-time contribution to surplus. The amount of the surplus contribution depends on the risk class of the physician, the amount of coverage purchased, and the location of the physician. For most physicians, the surplus contribution will be approximately equal to the premium paid. No interest or dividends will be paid on the contribution to surplus and it will be returnable only under certain conditions. A loan program will be offered to assist the physician in financing the surplus contribution.

It is hoped that coverage will be available for much less than JUA rates and even as much as 50% less, said Milton Davis, MD, Dallas, Board of Governors chairman.

The actuarial analysis indicates that the trust can offer coverage at rates significantly lower than the JUA and at rates competitive with the private market. On the basis of costs for coverage, the trust also can be competitive because of lower operational expenses, availability of investment income to pay losses, and absence of the profit motive.

Other members of the Board of Governors, approved by the TMA House of Delegates to serve until November 1978, include Presley Chalmers, MD, vice chairman, Houston; Ed Schmidt, MD, secretary-treasurer, Pecos; Francis O'Neill, MD, San Antonio; Walter A. Brooks, MD, Quanah; C. W. Castle, MD, Liberty; Robert G. Thumwood, MD, Houston; Richard L. Vardy, MD, Lubbock; and F. Warren Tingley, MD, Arlington.

Temporary space for the trust has been leased from TMA at 1905 N Lamar Blvd, Austin, TX, 78701. A plan of operation is being developed by the governing board with assistance of American Health Systems and loaned TMA staff.

During development, the trust will begin hiring a staff of experienced insurance professionals to administer the program. The trust also will develop programs for physician education and for patient safety.

Governing board members are available to address county medical societies and hospital medical staffs.

Nationally, the 18 physician owned/medical society sponsored insurance companies created by medical societies, as well as an assortment of independent doctor companies, trust funds, and defense funds that have been established in the past two years, have eased the insurance availability problem considerably. More than 70,000 physicians now buy coverage through their own companies.

Some groups feel they can do more than provide professional liability insurance to physicians. They believe that they can simultaneously attack some of the underlying causes of liability claims and suits and eliminate or at least minimize them. Physician involvement in running these insurance operations is what many say can make the big difference.

More than $2 million approved for family practice residencies

More than $2.1 million in state funds for planning, expanding, and operating family practice residency training programs in Texas was approved by the Coordinating Board, Texas College and University System at its July meeting in Austin.

The board approved disbursing $23,832 in 1978 appropriations and $2,161,482 in 1979 monies. The board approved planning and operational grants from current fiscal year funds for Methodist Hospitals of Dallas; San Jacinto Methodist Hospital, Baytown; and Central Texas Medical Foundation, Austin.

The Texas Legislature last year appropriated more than $3 million for the biennium to increase the number of family practice residency positions in Texas. That legislation was supported by TMA. Intent of the legislation is to improve the distribution of family physicians and upgrade access to health care in underserved areas.

Fiscal 1979 grants were approved for St Paul Hospital, Dallas; The University of Texas Medical Branch at Galveston; St Mary Hospital, Port Arthur; Victoria County Medical Education and Research Foundation; San Jacinto Methodist Hospital, Baytown; Fort Worth Osteopathic Hospital; Wichita Falls Family Practice Residency Program; and Dallas Osteopathic Hospital.

Funding was also approved for family practice residency programs sponsored by the Baylor College of Medicine Affiliated Hospitals; Central Texas Medical Foundation, Austin; John Peter Smith Hospital, Fort Worth; McAllen General Hospital; The University of Texas Health Science Center at San Antonio; McLennan County Family Practice Residency Program, Waco; UT Medical School at Houston/Memorial Hospital System; Memorial Medical Center, Corpus Christi; Texas Tech University School of Medicine; Teaching Hospitals of the UT Medical School at San Antonio; and UT Medical Branch at Galveston.

TMA begins new department of physician fees and profiles

The Texas Medical Association has initiated a Department of Physician Fees and Profiles to assist the practicing physician with Medicare and Medicaid related problems. C. Thrasher Allen is the department director.

There are several ways the department can assist physicians. It can provide assistance in communicating with Medicare or Medicaid intermediaries and, if the problem affects many physicians, the TMA Council on Tax-Financed Health Care Programs can be asked to discuss it with the fiscal intermediary. In addition, the office can provide physicians with a copy of the regulation that is the basis for the fiscal intermediary's action.

For help, call or write C. Thrasher Allen, Director, Department of Physician Fees and Profiles, Texas Medical Association, 1905 N Lamar Blvd, Austin, TX, 78705, (512) 477-6704.

The department is not staffed to provide legal advice, and the physician's attorney should be consulted if legal questions are involved.

Just before beginning his medical education, Rice University graduate Mark P. Provenzano (left), Houston, is getting involved in medical organizations. Accepting the student's applications for membership in the Harris County Medical Society, the Texas Medical Association, and the American Medical Association is Percy E. Lowe, MD, president of the Harris County Medical Society. Asked what prompted his early involvement, the 21-year-old Baylor College of Medicine freshman said he believes membership in all levels of the profession's organizations will greatly complement the academic portion of medical education.

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Prudential
Group Insurance

TMA Executive Board questions Prudential's second opinion program

TMA's Executive Board has voted to express great concern and displeasure with several provisions of the elective surgical second opinion program which the Prudential Insurance Company of America is preparing to implement.

Although TMA has long supported the right of a patient or a physician to seek consultation freely with a consultant of his or her choice, the Prudential plan offers several areas of concern.

TMA questions Prudential's plan to designate the surgeon for the second opinion. "It seems inconceivable to us that Prudential would deny the policyholder who pays the premium a cherished freedom in this country—the right of the individual to select the doctor of his or her choice," says the Executive Board statement.

The board also questions Prudential's establishment of a closed panel of physicians, who agree to participate, to render second opinions. TMA does not support the concept of a closed panel of consultants, and thinks the patient should have freedom of choice in selecting a physician.

In another area, Prudential has expressed its interest in establishing a set fee which would apply to all physicians in all circumstances in all locations. TMA believes the physicians clearly should have the right to establish the level of fees for his professional services.

Prudential also plans to arrange for payment directly to the surgical specialist who signs an agreement to accept the fee as payment in full. TMA feels this provision would deny the physician the prerogative of billing the patient directly or accepting an assignment from the insurance company. That policy option prevails in Texas, and the TMA has long supported the physician's right to bill the patient directly for the professional services which he or she has rendered.

Under an alternative approach, Prudential has indicated that it will allow a lesser surgical benefit if the claimant has elective surgery without seeking a second opinion. TMA feels that provision is not fair to the policyholder who has paid the premium. The insurance company should not penalize policyholders by paying a lesser amount to the patient who chooses to accept the evaluation of his or her physician, and who does not choose to secure a second opinion. The TMA also believes that a physician who renders a professional service should receive a fee commensurate with that service, regardless of whether consultation has been sought.

The TMA Executive Board has asked Prudential to review and reconsider these provisions before further implementation of the program in Texas.

Responding to the TMA Executive Board statement, Robert F. Lewis, Prudential's vice president for group insurance, said that within the past several years, second opinion programs have been more extensively and melodramatically publicized by governmental programs and certain private plans.

The Prudential program is being established on a nationwide basis to administer an optional addendum to Prudential group insurance policy, Lewis said.

"Our conventional policies have and will continue to afford reimbursement for consultation of any doctor sought by an insured patient. Prudential's second opinion program anticipates providing patients with a list of participating surgeons so the patient could make the final choice," Lewis said.

The closed panel concept is being utilized only to administer the program efficiently and to provide some general quality assurance, he said. He added that physician participants are limited to board-certified surgeons who voluntarily accept Prudential's proposal. "From studying various approaches, we know that such an arrangement will facilitate more participation by patients. It also generally assures that the patient will be seen by a consultant who is at least as professionally qualified as the treating physician," he said.

"Since we wish to provide full payment for the consultation, we had two choices: agree to pay whatever the consultant's fee was at time of billing or secure agreement in advance that the surgeon would accept our proposed payment in full. The former approach is unacceptable to group policyholders because they resist open-ended financial commitments. Recognizing the need for administrative simplicity and the fact that the consultant will see both simple and complex cases, we have established what we think is a fair overall fee. We would intend to adjust the fee periodically in response to factors that normally affect physician fees," he said.

Lewis explained that Prudential's direct assignment of the payment to the surgeon is merely an administrative expedience which recognizes that the benefit payment is equal to the charge and assures that the surgeon will be paid with minimal administrative effort on his part.

Lewis called the alternative benefit approach an additional option available to a group policyholder. "It does respond to the fact that purely voluntary second opinion programs are not utilized fully for a variety of reasons. Thus, this alternative would presumably assure more participation and more insurer data gathering," he said.

Doctors and hospitals ahead in battle with rising costs

Doctors and hospitals are beginning to get a handle on the rising cost of hospital care, declared Paul W. Earle, executive director of the voluntary effort of medicine and hospitals to curb costs.

Earle said the professions are achieving their goal of reducing by 2% each year the percentage of cost rise.

In 1976 hospital costs increased by 19.7%. In 1977 the rate of increase was pared to 15.6%, and for the first quarter of 1978 the rate of increase was only about 13%.

"Hospitals and doctors are tightening up. There's no doubt about it," Earle said.

There have been more mergers, more sharing of services, a slowing of expanding hospital personnel. And the average length of stay—7.4 days in recent years—has been reduced to 7.2. In national terms this represents a substantial saving.

The voluntary cost containing effort is a joint endeavor of the American Medical Association, American Hospital Association, and Federation of American Hospitals, with the cooperation of such other groups as Blue Cross–Blue Shield and the Health Insurance Association of America. Texas and the Texas Medical Association are involved at the state level.

Tech receives grant for rural health care

The Sid W. Richardson Foundation of Fort Worth has presented a $25,000 grant to Texas Tech University Health Sciences Center to assist in the development of a Rural Health Care Delivery System now being established by the Tech School of Medicine.

In notifying the school of the grant, Valleau Wilkie, Jr, executive vice president for the Richardson Foundation said, "We believe that the program can provide a viable model for both rural health care delivery in areas seriously underserved and important training for family practice physicians."

The first phase of Tech medical school's Rural Health Care Delivery System began operating last fall at the Crosbyton Clinic in Crosbyton, Texas. It is a joint project of the medical school and the community.

The project will result in a network of care centers with communication and transportation links that will serve a multi-county area. The comprehensive primary care center is staffed by faculty and resident physicians. Smaller centers can be established later in surrounding communities and supported by physicians from the comprehensive center.

Centers will provide primary care services for medically underserved populations, and will train undergraduate medical students, resident physicians, and other health professionals in the delivery of health care in rural settings.

TMA offers programs on medical issues

An update on key medical issues, programs and policies of the American Medical Association, and national health insurance proposals are just a few of the topics offered in the TMA Forum on Medical Issues.

With the recruitment of 75 physicians and staff speakers, TMA offers its county medical societies programs on 45 separate medical topics within the broad areas of legislation, socioeconomics, education, ethics, hospital issues, legal aspects of medicine, community health programs, and 1978 elections.

These programs are presented at no charge, and TMA underwrites the travel cost of its speakers.

For program requests and more information about the speakers forum, contact Robert G. Mickey, TMA headquarters, 1801 N Lamar Blvd, Austin, TX 78701, (512–477-6704).

FDA and CDC continue study of liquid protein diets

As the Food and Drug Administration and the Center for Disease Control (CDC) continue investigating deaths associated with liquid protein diets, 58 such deaths have been reported in the latter half of 1977 and in early 1978.

Sixteen of these deaths, all in white women between the ages of 23 and 51, fit a distinctive clinical and pathologic pattern, according to CDC. The pattern is characterized by either sudden death or death resulting from intractable cardiac arrhythmias in individuals with no previous history of heart disease. All 16 women used liquid protein products as the primary source of calories

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for periods of greater than two months.

A nationwide telephone survey was performed during March and April 1978 to determine how many women between the ages of 25 and 44 had followed similar dietary regimens for one month or longer in 1977. The results indicated that no more than 98,000 white women followed the liquid protein diet for a month or more, and that no more than 37,000 used it for two months or more in 1977. Usage of the diet did not differ significantly among the racial groups surveyed.

The FDA is now developing regulations to require mandatory warning labels on protein products promoted for weight reduction. Additional studies are in progress to clarify further the magnitude of the risk involved for individuals who follow these diets and to determine the exact mechanism of the deaths that have occurred.

National joint practice conference will meet in Dallas

Physicians, nurses and administrators will discuss innovative practical applications of joint practice concepts in the three-day Third National Conference on Joint Practice in Dallas Nov 9, 10, and 11. The Texas Joint Practice Commission, composed of TNA and TMA members, will host the conference.

The National Joint Practice Commission, with the American Medical Association and the American Nurses' Association as co-sponsors, has planned ten conference workshops on crucial joint practice issues.

Conferees will hear the first report to the health professions on the NHPC's demonstration project to introduce joint or collaborative practice in four participating hospitals. This project, funded by the W.K. Kellogg Foundation, will run to the middle of 1980.

Nationally known medical and nurse educators will participate in a forum on how to educate nurses and physicians for collaborative practice through interdisciplinary education.

Other conference topics include development of nursing staffs in hospitals as a basis for better collaboration with medicine, joint review of medical and nurse practice acts, providing third party payment to nurses for nursing in primary care settings, and hospital programs to improve patient care.

For more information write the National Joint Practice Commission, 35 E Wacker Drive, Suite 1990, Chicago, IL 60601.

AMA poll reveals doctor's health and exercise habits

An American Medical Association poll of doctor's health and exercise habits revealed that only 10.7% of those responding play golf. Most popular sport among those who exercise regularly is jogging, followed by tennis and swimming.

Stress, overwork, and exposure to infectious disease are the three health hazards of medical practice mentioned most often by doctors polled, according to the results published in the June 23 edition of *American Medical News*.

Doctors tend to follow their own advice to patients. Only 18.2% say they are now smoking. Ten years ago 30% of doctors smoked. And, they hold down their weight. Only one-fourth of physicians admit to being more than 4.5 kg overweight.

But, doctors aren't exercising as much as they recommend for others. Two out of five admit they do not exercise on a regular basis. Doctors prefer individual sports, such as jogging.

Doctors also follow the adage that, "The physician who treats himself has a fool for a patient." Four out of five say they go to a colleague when they need medical attention.

UTMB receives grant to continue head injury center

Robert G. Grossman, MD, professor and director of neurosurgery at The University of Texas Medical Branch, has received a $955,000 renewal grant from the National Institute of Neurological and Communicative Disorders and Stroke for continued support of the UTMB head injury center.

The grant is for three years and supports the study and care of patients with a variety of neurological injuries.

"The center utilizes a team approach to care for a patient throughout the hospital stay and rehabilitation period," Dr Grossman said.

He said that every year the center treats about 300 patients of all ages. Their injuries result from a variety

of circumstances including industrial injuries, automobile accidents and falls.

The head injury center is designed to treat patients with head injuries, spinal cord injuries, strokes, and other neurological disorders requiring specialized care.

In its ninth year of operation at the medical branch, the center is one of five of this type supported in the United States by the National Institutes of Health.

Claim forms changed

A new claim form has been developed and approved for use by Medicaid, Medicare, and maternal and child health programs.

The acceptance of a common claim form is a step toward reducing paperwork and simplifying the administrative workload of the doctor's staff. TMA's Council on Tax-Financed Health Care Programs has worked for development of the uniform claim form for more than five years.

NHIC and Blue Cross–Blue Shield began filling claim form requests with the new form in July 1978. An announcement has been mailed to all providers with details for completion and a sample form.

The forms will be available in two versions: loose, single sheets and continuous forms for computer-generated claims.

Any questions concerning the new form should be directed to NHIC using the toll free number, 1-800-252-9224, or Blue Cross–Blue Shield at PO Box 226184, Dallas, TX 75222.

Deadline near for continuing education directory

Texas Medicine has announced plans for its ninth annual *Texas Continuing Education Directory for Physicians*.

The directory will contain courses designed specifically for physicians, plus a listing of medical meetings scheduled during the year. It will be published in late December 1978.

Hospitals, schools, medical societies, and others wishing to have courses and meetings for physicians included in the 1978 directory should submit the information by Oct 1 to *Texas Medicine*, 1905 N Lamar Blvd, Austin, TX 78705.

Juvenile Diabetes Foundation offers awards for research

The Juvenile Diabetes Foundation is offering a career development award in diabetes research for the funding year July 1, 1979, through June 30, 1980. The award has a three-year term with annual review; salary for one year is up to $35,000.

The foundation is interested in applications relating to the etiology and/or the management of treatment and/or complications of diabetes in childhood.

Applications may be obtained from the Grant Administrator, Juvenile Diabetes Foundation, 23 East 25 Street, New York, NY 10010. Completed applications must be postmarked no later than Oct 1, 1978.

Candidates must have a doctoral degree with approximately four to seven years postdoctoral clinical or research experience, or both, by the beginning of the award.

Health department initiates nursing home complaint line

Last October, Texans discovered a new way to express concerns about friends and relatives in nursing homes. The Texas Department of Health, Bureau of Long Term Care, installed a toll-free WATS line to report complaints about nursing home care of residents.

Since then, 414 complaints have been received and investigated.

Since January 1978, the complaints section of the bureau has completed investigation of 1,802 complaints received via the WATS line and other means.

Robert L. Elrod, Jr, administrator of training and complaints, says the current trends suggest more than 7,000 complaints will be received and investigated in 1978.

AMA comments on Bakke decision

"The American Medical Association has long been in support of programs designed to increase minority representation in medical schools and in the practice of medicine," said C. H. William Ruhe, MD, senior vice president of the American Medical Association.

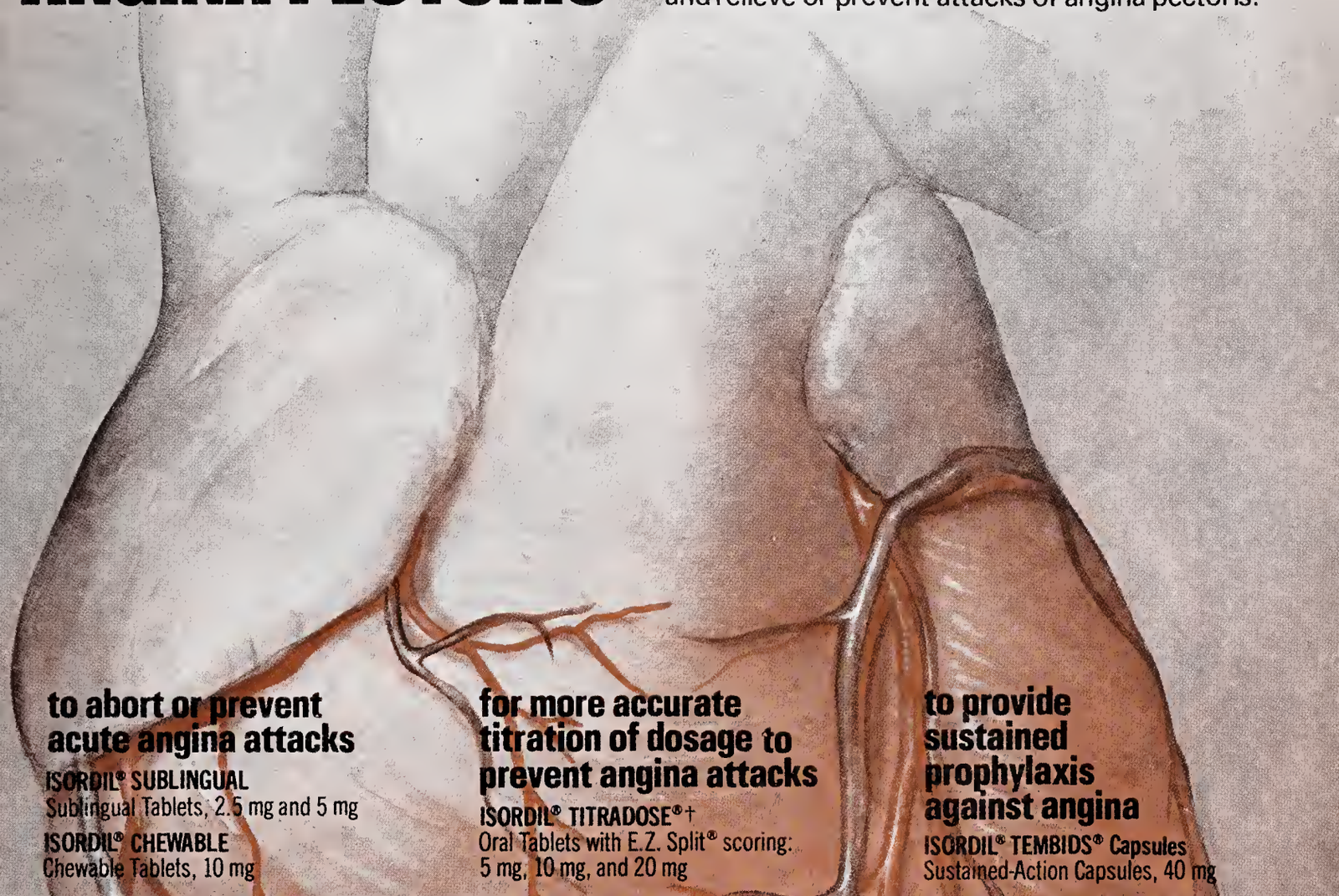
Dr Ruhe made his remarks in response to the Supreme

ISORDIL®
(isosorbide dinitrate)

HELPS THE HEART IN THE CONTROL OF ANGINA PECTORIS*

The established use of Isordil in the management of angina pectoris for more than two decades has often been ascribed only to the vasodilatation it produces in the coronary arteries. Recent investigations, however, suggest that an even more important effect of this agent is to dilate peripheral arteries and veins. Arterial dilatation lowers impedance to left ventricular ejection, reducing afterload. Venous dilatation leads to venous pooling and a fall in right and left ventricular filling pressure, thus reducing preload.

With afterload and preload reduced, the amount of energy expended and oxygen consumed by the heart should be decreased. Isordil can thus reduce myocardial oxygen requirements and relieve or prevent attacks of angina pectoris.



to abort or prevent acute angina attacks

ISORDIL® SUBLINGUAL
Sublingual Tablets, 2.5 mg and 5 mg

ISORDIL® CHEWABLE
Chewable Tablets, 10 mg

for more accurate titration of dosage to prevent angina attacks

ISORDIL® TITRADOSE®†
Oral Tablets with E.Z. Split® scoring:
5 mg, 10 mg, and 20 mg

to provide sustained prophylaxis against angina

ISORDIL® TEMBIDS® Capsules
Sustained-Action Capsules, 40 mg

***Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Probably" effective: When taken by the sublingual or chewable route, Isordil Sublingual and Chewable Tablets are indicated for the treatment of acute anginal attacks and for prophylaxis in situations likely to provoke such attacks.
"Possibly" effective: When taken by the oral route, Isordil is indicated for the relief of angina pectoris (pain of coronary artery disease). It is not intended to abort the acute anginal episode, but is widely regarded as useful in the prophylactic treatment of angina pectoris.
Final classification of the less-than-effective indications requires further investigation.

Contraindication: Idiosyncrasy to this drug.

Warnings: Data supporting the use of nitrites during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety.

Precautions: Tolerance to this drug and cross-tolerance to other nitrites and nitrates may occur.

Adverse Reactions: Cutaneous vasodilation with flushing. Headache is common and may be severe and persistent. Transient episodes of dizziness and weakness as well as other signs of cerebral ischemia associated with postural hypotension may occasionally develop. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents. An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite, and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur even with the usual therapeutic dose. Alcohol may enhance this effect. Drug rash and/or exfoliative dermatitis may occasionally occur.

Consult direction circular before prescribing.

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Court ruling, Regents of the University of California v Bakke.

He said the AMA's position is reaffirmed by a statement in a recent report that the inadequate representation of minority groups in the medical profession and in medical school enrollments remains of concern to the AMA.

"The Supreme Court ruling seems to permit medical schools to continue using race as one factor in determining admission criteria. We hope that medical schools will, therefore, continue to use those selective admissions programs designed to increase the number of minority students. It is only through these types of programs that we can hope to increase the numbers of minorities in the practice of medicine," Dr Ruhe said.

Medicare applies new economic index

The economic index applicable to prevailing charges for physician's services for July 1978 through June 1979 will be 1.426 (42.6% above fiscal year 1973 levels.)

This economic index for the 12 months beginning July 1, 1978, represents a 5.08% increase over the economic index (l.357) used for the previous 12 months.

Carriers will use a 1.0508 figure where an annualized index is applied in accordance with Part B Medicare Carriers Manual section 5020.3C3.

All carriers should, in accordance with the established reasonable charge methodology, continue to develop updated customary and prevailing charge screens for fee screen year 1979 based on calendar year 1977 charge data, and implement the indicated economic index limitation on prevailing charge increases.

Coming next month

Articles scheduled for publication in October include "The Present and Future of Coronary Artery Surgery in the Community Hospital," "Coronary Artery Spasm," "Autonomous Hyperparathyroidism: Results of Parathyroidectomy by Hand Radiographs," "Improving the Delivery of Health Services in South Texas," and "Emergency Room Utilization at Hermann Hospital."

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media[a]	1978 through 7/31	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	+31.8%	+38.0%	−23.1%	1.27%
Loomis-Sayles Mutual Fund	+ 4.2%	+25.3%	−18.2%	3.87%
Mercantile Bank HR-10 Equity Fund	+ 4.0%	+56.0%	−16.6%	b
Mercantile Bank HR-10 Fixed Income Fund	+ .70%	+34.6%	+26.9%	b
T. Rowe Price Growth Stock Fund	+13.6%	+33.9%	−33.8%	1.94%
T. Rowe Price New Income Fund	− 4.1%	+ 6.6%	N/A	8.02%
Stein, Roe & Farnham Balanced Fund	+ 4.8%	+25.8%	−23.8%	3.43%
Standard & Poor 500 Stock Average	+ 5.9%	+38.8%	−19.4%	
Dow Jones Industrial Average	+ 3.7%	+34.8%	−18.5%	

a. Mutual Fund performances include reinvested capital gain distributions.
b. Mercantile HR 10 Equity and Fixed Income Funds make no distributions. All earnings are retained in the respective funds.

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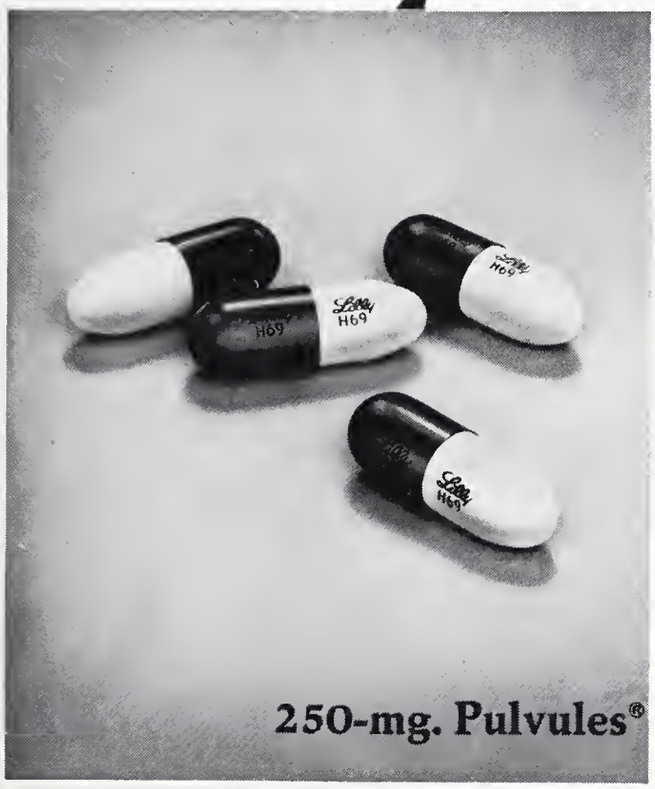

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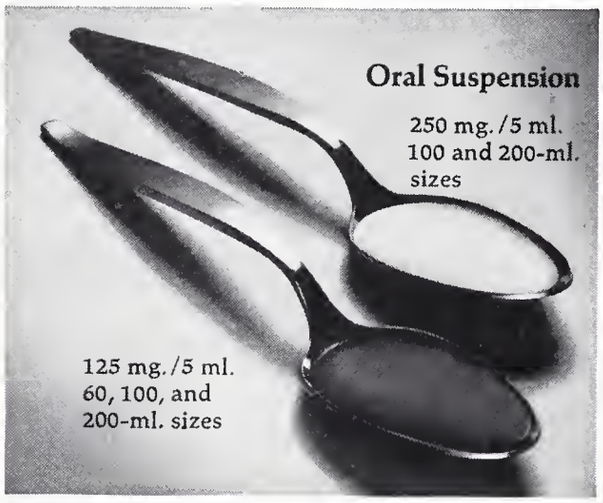

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125 mg./5 ml.
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"...Sleep that knits up the ravell'd sleave of care..."

—WILLIAM SHAKESPEARE, *MACBETH*, ACT II, SC. 2

Insomnia
a shade of blue that often accompanies depression

And, in anxiety/depression, Adapin® (doxepin HCl) often helps restore disturbed sleep patterns, such as early morning awakening, with a single daily dose at bedtime.[1] Adapin quickly relieves the patient's anxiety, gradually brightens his mood and outlook, with optimal antidepressant response usually evident within two to three weeks.

1. Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131:1027-1029, 1974.

Brief Summary of Prescribing Information
ADAPIN® (doxepin HCl) Capsules

Indications—Relief of symptoms of anxiety and depression.

Contraindications—Glaucoma, tendency toward urinary retention, or hypersensitivity to doxepin.

Warnings—Adapin has not been evaluated for safety in pregnancy. No evidence of harm to the animal fetus has been shown in reproductive studies. There are no data concerning secretion in human milk, nor on effect in nursing infants.

Usage in children under 12 years of age is not recommended. MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with this drug, as serious side-effects and death have been reported with the concomitant use of certain drugs and MAO inhibitors.

In patients who may use alcohol excessively potentiation may increase the danger inherent in any suicide attempt or overdosage.

Precautions—Drowsiness may occur and patients should be cautioned against driving a motor vehicle or operating hazardous machinery. Since suicide is an inherent risk in depressed patients they should be closely supervised while receiving treatment. Although Adapin has shown effective tranquilizing activity, the possibility of activating or unmasking latent psychotic symptoms should be kept in mind.

Adverse Reactions—Dry mouth, blurred vision and constipation have been reported. Drowsiness has also been observed.

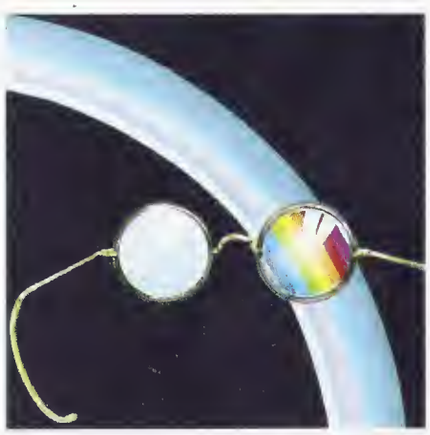
Adverse effects occurring infrequently include extrapyramidal symptoms, gastrointestinal reactions, secretory effects such as sweating, tachycardia and hypotension. Weakness, dizziness, fatigue, weight gain, edema, paresthesias, flushing, chills, tinnitus, photophobia, decreased libido, rash and pruritus may also occur.

Dosage and Administration—In mild to moderate anxiety and/or depression: 25 mg t.i.d. Increase or decrease the dosage according to individual response. Daily dosage, up to 150 mg may be taken at bedtime without loss of effectiveness. Usual optimum daily dosage is 75 mg to 150 mg per day not to exceed 300 mg per day.

Antianxiety effect usually precedes the antidepressant effect by two or three weeks.

How Supplied—Each capsule contains doxepin, as the hydrochloride: 10 mg, 25 mg, 50 mg and 100 mg capsules in bottles of 100 and 1000.

For complete prescribing information please see package insert or PDR.



When they see life in shades of blue... help them see life in all its colors.

Adapin®
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single daily dose recommended h.s.

10 mg capsules
25 mg capsules
50 mg capsules
NEW 100 mg capsules

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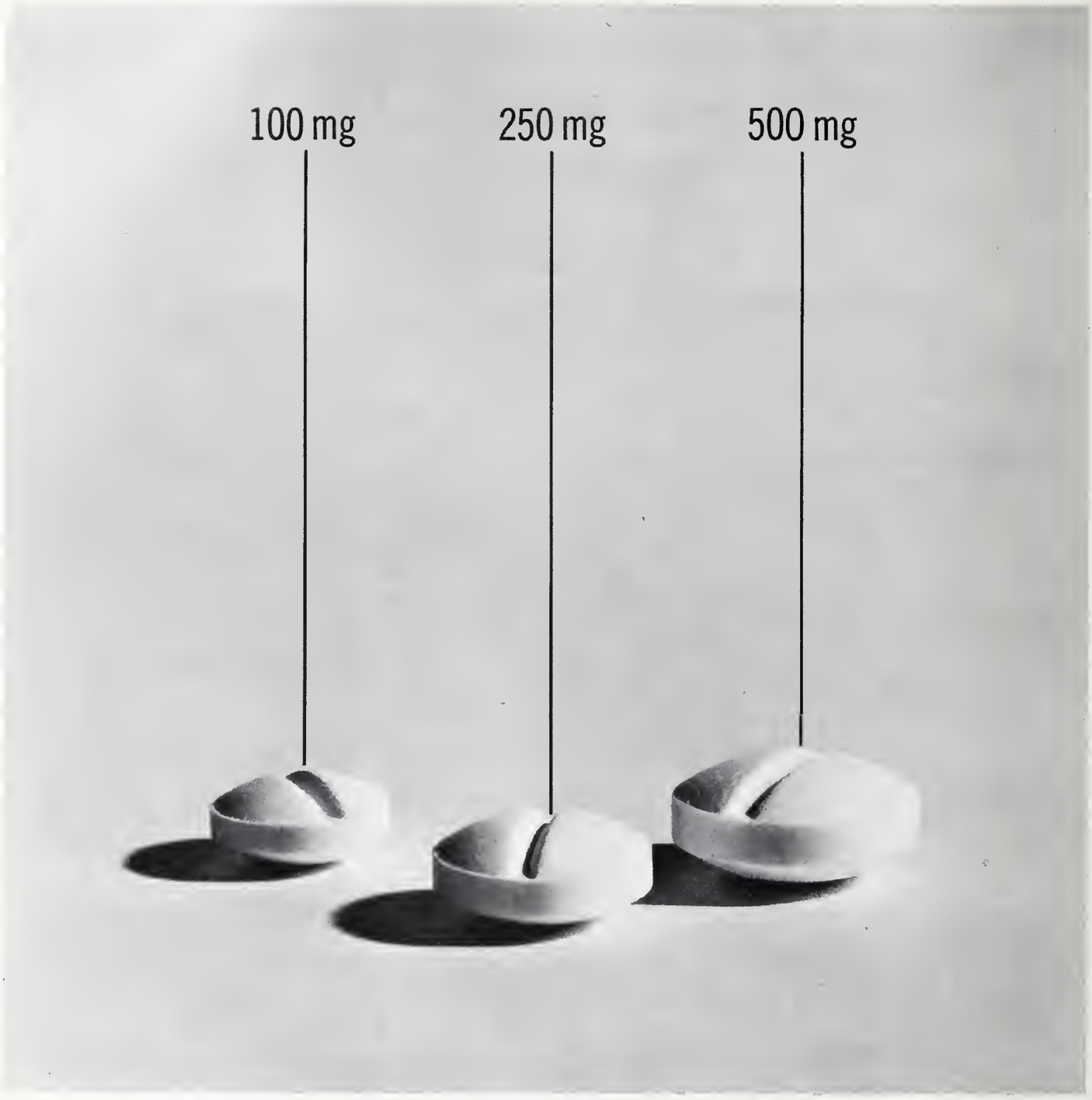

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MEDICAL NEWSMAKERS

M. LAMAR ROSS, MD, professor and chairman of family medicine at The University of Texas Medical Branch in Galveston, has announced his intention to retire and is serving as chairman ad interim until a new chairman is selected.

GEORGE D. SHIMEK, Santa Rosa, has been elected president of the American Lung Association of Texas. Other officers elected are DON W. HENSLEY, Merkel, president-elect; MRS KENTON MACINTYRE, Denton, first vice president; MRS WILLIAM A. MITCHELL, Lufkin, second vice president; STANTON P. FISCHER, MD, Houston, secretary; and JOE K. WELLS, Austin, treasurer.

HAL J. DEWLETT, MD, director of Public Health Region 5, was honored recently with the Americanism Medal by the Daughters of the American Revolution. Qualifications for the award, the highest given by DAR, include leadership in promoting the American way of life, trustworthiness, and dependability demonstrated by participation in community activities.

FREDERICK G. DORSEY, MD, Houston, immediate past president of the American Geriatrics Society, is the new chairman of the society's board of directors.

JULIAN I. KITAY, MD, is the new associate dean of medicine for curricular affairs at The University of Texas Medical Branch. Dr Kitay is former head of the division of endocrinology and metabolism and professor of internal medicine and physiology at the University of Virginia School of Medicine.

RUSSELL W. H. KRIDEL, MD, Houston, was elected to the AMA House of Delegates from the Resident Physician Section, and PHIL KURZNER, third-year Baylor College of Medicine student, was named a delegate from the Medical Student Section at the AMA meeting in St Louis.

JIM HICKOX, executive director of Harris County Medical Society, has been elected secretary-treasurer of the American Association of Medical Society Executives.

MARGARET P. SULLIVAN, MD, Houston, was one of four women who received the American Association of University Women's "Outstanding Women" award. Dr Sullivan was chosen as the winner in education for her achievements in pediatrics.

JOHN P. MCGOVERN, MD, Houston, has received the honorary degree of doctor of science from John F. Kennedy University, Orinda, Calif. Dr McGovern is director of the McGovern Allergy Clinic, chairman of the Texas Allergy Research Foundation, and professor of allergy and history of medicine at The University of Texas Graduate School of Biomedical Sciences.

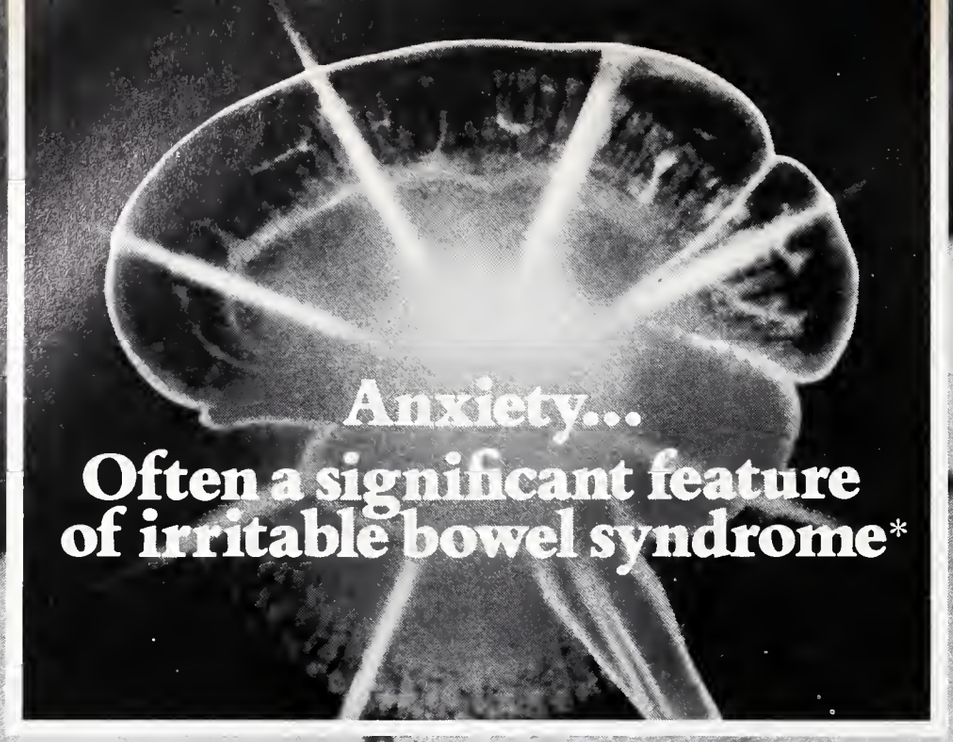
CHARLES B. SHUEY, JR, MD, Dallas, is the new president of the Texas Thoracic Society. Officers elected to serve with Dr Shuey are K. JOY ROBERTSON, MD, Dallas, president-elect; GYMAN C. OKESON, MD, Temple, vice president; and JOHN R. PETTIGROVE, MD, Corpus Christi, secretary-treasurer. W. W. BURGIN, JR, MD, San Antonio, and ARTHUR A. COHEN, MD, El Paso, have been elected to serve on the executive committee.

M. Lamar Ross, MD

Julian I. Kitay, MD

Margaret P. Sullivan, MD

John P. McGovern, MD



Anxiety...
Often a significant feature of irritable bowel syndrome*

The action of Librium®
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A significant advantage of adjunctive

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Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Antianxiety
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Librax is unique among G.I. medications in providing the specific antianxiety action of Librium® (chlordiazepoxide HCl) as well as the potent antisecretory and antispasmodic actions of Quarzan® (clidinium Br) for adjunctive therapy of irritable bowel syndrome* and duodenal ulcer.*

*Librax has been evaluated as possibly effective for this indication.
Please see brief summary of prescribing information on following page.

ROCHE

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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Wendell I. Wyatt, M.D.
Lowell L. Harvey, M.D., Pulmonary
John A. Caras, M.D., Endocrinology

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Melvin Horany, M.D.
James T. Cook, M.D.
Madeleine Kent, M.D.

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John C. Wurster, M.D.

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Warren T. Kable, M.D.
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After five years of negotiations, HEW designates Texas a single PSRO area

After more than five years of negotiations, talks, plans, designs, legal battles, and meetings with the US Department of Health, Education, and Welfare, Texas has become the only populous state to be designated as a single professional standards review organization (PSRO) area.

Throughout the five years, HEW has insisted the state should be divided into nine PSRO areas, following the HEW principle that only small population states could have statewide PSROs.

But, the Texas Medical Association prevailed. Backed by other health care providers in the state, TMA worked to form the Texas Institute for Medical Assessment (TIMA) to perform the PSRO function in Texas. TMA sued the HEW Secretary, and the US District Court in 1976 instructed HEW to redesignate the PSRO areas in the state.

Finally, on July 5, 1978, a regulation was published authorizing a statewide PSRO in Texas, but making clear the regulation applies only in Texas. Also published the same day was a proposed designation of Texas as a single statewide PSRO area.

The background

The battle for one PSRO began in October 1972 when HR 1, the Social Security Amendments of 1977, were signed into law. PSROs were called for by HEW no later than Jan 1, 1974, for hospitals. PSROs for all care were mandated by Jan 1, 1976. TMA opposed the PSRO amendments even prior to passage.

The federal government created PSROs to monitor medical services paid for by Medicare and Medicaid to determine the need for patient hospitalization care at the appropriate level and at acceptable quality.

The federal program was instigated to insure that medical services conform to professional standards, that medical services are medically necessary, and that medical services are provided in the appropriate level of institution.

In 1973, Texas Medical Association leaders met to plan how to deal with PSROs in Texas. They decided then to seek a single area designation for Texas, a single PSRO.

At this time the Texas Institute for Medical Assessment was formed to qualify for operating a statewide PSRO in Texas. Texas physicians believed that the TIMA plan would provide economics in administration, avoid wasteful duplication, have cooperation and participation, and still respect existing medical services areas and flow patterns.

Licensed physicians organized TIMA, which was also supported by the Texas Medical Association, the Texas Osteopathic Medical Association, Texas Hospital Association, Texas Osteopathic Hospital Association, Private Clinics and Hospitals Association (now the American Federation of Hospitals), Texas Nursing Home Association, medical schools (MD and DO), and state agencies. All licensed physicians are eligible for TIMA membership.

The process begins

HEW had its first hearings to designate PSROs in Texas in August and October 1973. At that time Joseph T. Painter, MD, now vice president for administration at The University of Texas M. D. Anderson Hospital and Tumor Institute, was installed as TIMA president.

Twice at the public hearings TIMA requested a government contract to organize a single PSRO throughout the state.

In August 1973, William Cherry, MD, HEW regional medical director, recommended a single area PSRO designation for Texas. No other proposals were submitted.

In March 1974, HEW established nine PSRO areas in Texas. Nevertheless, TIMA continued to fight for a single, statewide PSRO designation.

In January 1974 a TIMA poll showed that 90% of those who responded supported the TMA policy for a single PSRO area in Texas, 90% of those polled supported repeal of PSRO, and 90% of those polled supported the proposed TIMA plan.

In May 1974, TMA filed suit against HEW's planned division of the state into nine designated PSRO regions. The suit was heard 18 months later.

In January 1976, US District Court Judge Jack Roberts of The Western District Court of the United States District Court, Austin Division, set aside the nine designated areas because of undue influence by Congress and congressional staff on the decision, and directed HEW Sec David Mathews to reconsider the area designation procedure for Texas.

HEW filed notice of appeal of the case in March 1976; however, the appeal later was withdrawn.

HEW conducted an advisory poll of physicians in Texas in September and October of 1976 to determine their preference for multiple local PSRO area designations or a single statewide PSRO area designation.

Ballots were mailed to each Texas physician engaged

in active practice. There were 11,058 valid ballots cast, with 1,526 votes (13.8%) favoring multiple PSROs, and 9,532 (86.2%) favoring a single statewide PSRO.

On Dec 28, 1976, HEW Sec Mathews published in the *Federal Register* his proposal to designate Texas a single PSRO area.

"After careful consideration of the Department's overriding desire to expedite the timely establishment of the PSRO program in Texas, and in light of the considerable delay that completion of the entire designation and statutory state poll proceses would entail and the clear probability of the results of these processes, the Secretary proposes that the State of Texas be designated as a single PSRO area," said the statement.

But, the HEW Secretary's proposal didn't end the negotiations, planning, and waiting. What followed was more work by HEW.

Finally, proposed regulations were published in the March 3, 1978, *Federal Register* that could allow Texas to be designated as a single statewide PSRO.

The proposed rules allow HEW Sec Joseph Califano to designate state PSRO areas in states where no PSRO areas have been designated, and where he has evidence that physicians in the state favor a statewide area.

In supplementary information, HEW indicated that some states have not been able to enact the PSRO statute because of the failure or inability to accommodate the strong preference of some physicians for the designation of statewide boundaries of the PSRO area in which they are being asked to function.

Finally, July 5, 1978 the final regulations amending the criteria published in the *Federal Register*, together with the proposed regulation designating Texas as a single statewide PSRO area, were published. There is a 60-day comment period ending Sept 5, 1978.

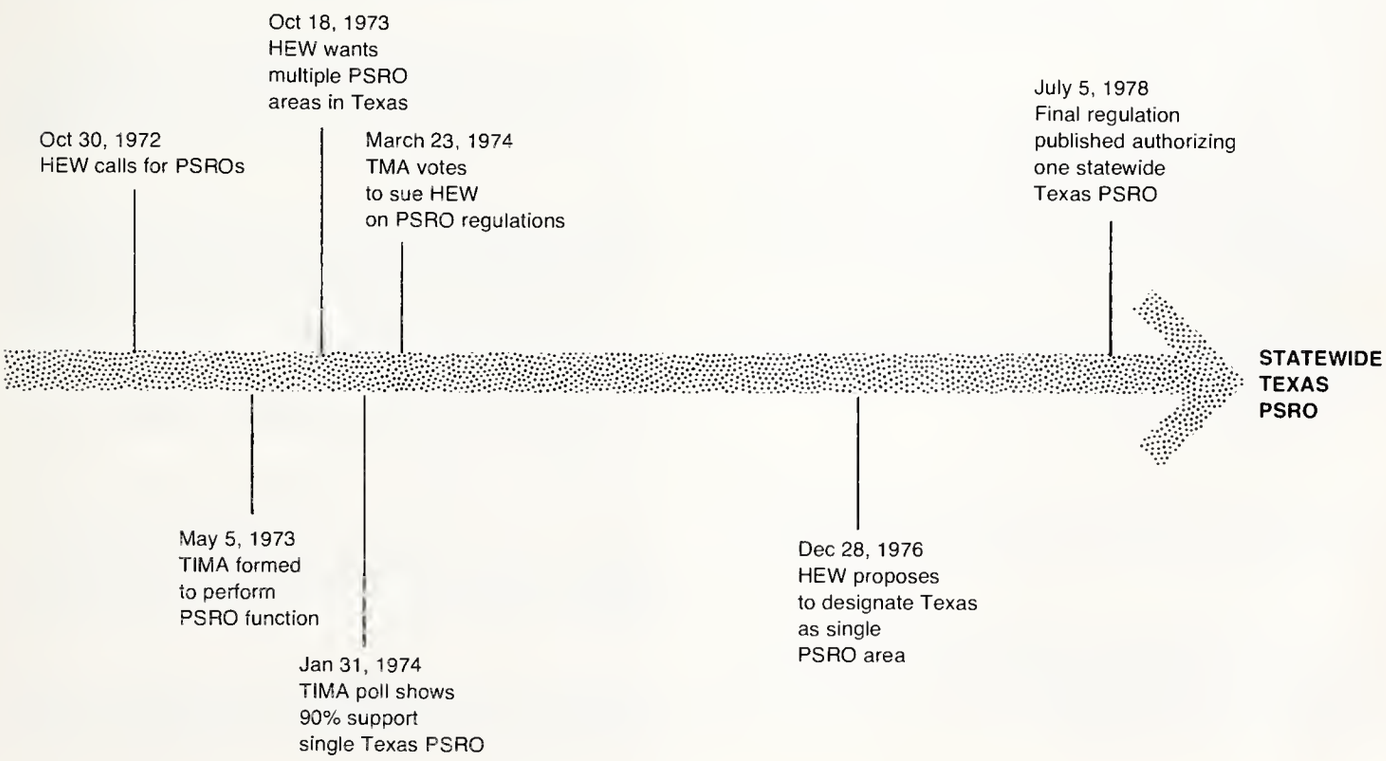
TIMA continues to seek designation as the PSRO organization in Texas.

Both TMA and TIMA have submitted favorable comments to HEW on the proposed regulations. The TIMA executive committee and staff have updated TIMA's application for the Texas PSRO.

When the Texas PSRO begins operation and assumes its full scope, it will review the professional activities of physicians and other health care providers in acute institutional care for services covered under the Social Security Act—Medicare, Medicaid, and maternal and child health programs.

The review of services provided to Medicare, Medicaid and maternal and child health beneficiaries must assure that services are medically necessary, meet professional standards, and are provided in the most economical medically appropriate institution.

TMA efforts for a statewide PSRO in Texas



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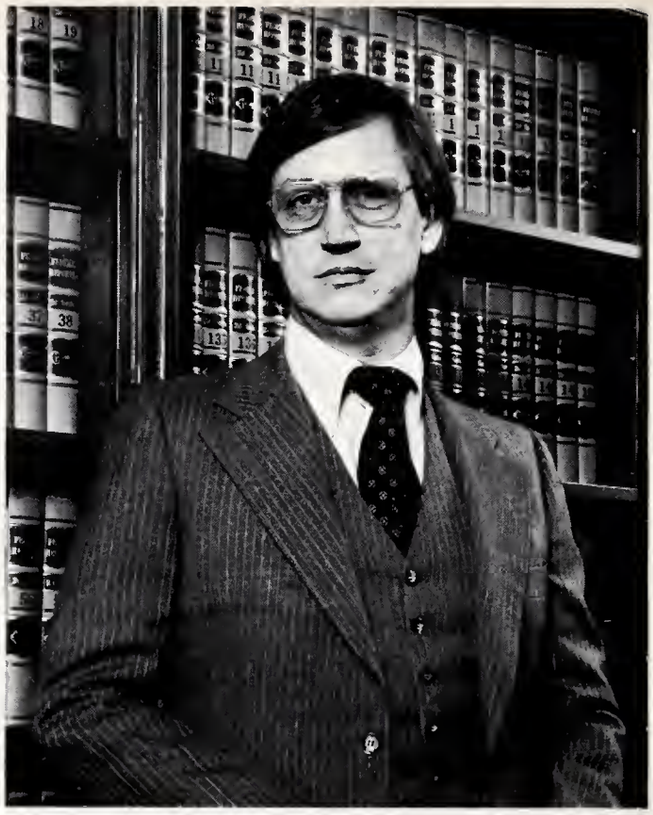
**Member, Texas Medical Association*



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MEETINGS

CURRENT NATIONAL MEETINGS

TEXAS PEDIATRIC SOCIETY. The Fifty-sixth Annual Meeting of the Texas Pediatric Society presents "A Symposium on Childhood Renal-Metabolic Disorders" at the Hilton Inn in Amarillo, Tex, Sept 14–16. The symposium is approved for 8½ elective hours by the American Academy of Family Physicians. Meetings of the Texas Chapter, American Academy of Pediatrics and the Texas Society of Pediatric Surgeons will be conducted. Contact: Mary Greene, Administrative Assistant, 1905 N Lamar Blvd, Austin, TX 78705.

FLYING PHYSICIANS ASSOCIATION. The Flying Physicians Association will conduct its annual meeting at Astrovillage Hotel in Houston Sept 9–14. The scientific program will focus on aviation medicine and general medical topics. Contact: Al Carriere, Business Counsel, 801 Green Bay Road, Lake Bluff, IL 60044.

AMERICAN MEDICAL ASSOCIATION. The American Medical Association will present a Medical Staff Leadership Seminar at the Fairmont Hotel in New Orleans Sept 29–30. The seminar is designed to provide important information about hospital operations and medical staff involvement. Modern, proven techniques for solving difficult problems facing today's medical staffs will be presented. The seminar meets the criteria for 14 hours in Category 1 of the AMA Physician's Recognition Award. Contact: Darrel J. Scott, AMA, 535 N Dearborn St, Chicago 60610.

CALENDAR OF LISTINGS

■Denotes Texas Meetings

SEPTEMBER

AMERICAN ACADEMY OF FAMILY PHYSICIANS, San Francisco, Sep 25–28, 1978. Roger Tusken, 1740 W 92 St, Kansas City, Mo 64114.

AMERICAN ACADEMY OF OCCUPATIONAL MEDICINE, Williamsburg, Va, Sep 20–22, 1978. Howard N Schulz, 150 N Wacker Dr, Chicago 60606.

AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE, New York, Sep 24–29, 1978. 2317 W Jefferson St, Suite 208, Joliet, Ill 60435.

AMERICAN CANCER SOCIETY, INC, National Conference on Care of the Child With Cancer, Boston, Sep 11–13, 1978. 777 Third Ave, New York 10017.

■ AMERICAN COLLEGE OF EMERGENCY PHYSICIANS, Houston, Sep 19–21, 1978. AE Auer, Exec Dir, 3900 Capital City Blvd, Lansing, Mich 48906.

AMERICAN COUNCIL OF OTOLARYNGOLOGY, Las Vegas, Nev, Sep 10, 1978. Harry W. McCurdy, Exec Dir, 1100 17 St, NW, Suite 620, Washington, DC 20036.

AMERICAN DIETETIC ASSOCIATION, New Orleans, Sep 25–29, 1978. Clara Zempel, RD, 430 N Michigan Ave, Chicago 60611.

AMERICAN ELECTROENCEPHALOGRAPHIC SOCIETY, San Francisco, Sep 7–9, 1978. Margaret H Henry, Exec Sec, 38238 Glenn Ave, Willoughby, OH 44094.

AMERICAN MEDICAL ASSOCIATION, 38th Annual Congress on Occupational Health, Tucson, Ariz, Sep 14–16, 1978. Barbara S Jansson, Department of Environmental, Public, and Occupational Health, 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL ASSOCIATION, Medical Staff Leadership Seminar, New Orleans, Sep 29–30, 1978. Department of Hospitals and Health Facilities, 535 N Dearborn St, Chicago 60610.

AMERICAN MEDICAL ASSOCIATION, 3rd Natl Conference on Impaired Physicians, Minneapolis, Sep 29–Oct 1, 1978. 535 N Dearborn St, Chicago 60610.

AMERICAN SOCIETY OF INTERNAL MEDICINE, Orlando, Fla, Sep 29–30, 1978. 535 Central Tower Bldg, 703 Market St, San Francisco 94103.

AMERICAN SOCIETY OF LAW & MEDICINE, Washington, DC, Sep 21–23, 1978. A Edward Doudera, 454 Brookline Ave, Boston 02215.

■ BLACKFORD MEMORIAL LECTURES, Denison, Tex, Sep 9, 1978. John D Gleckler, MD, 211 N Fannin, Denison, Tex 75020.

■ FLYING PHYSICIANS ASSOCIATION, INC, Houston, Sep 9–14, 1978. Al Carriere, Business Counsel, 801 Green Bay Rd, Lake Bluff, Ill 60044.

■ SOUTH PLAINS CHAPTER, TEXAS ACADEMY OF FAMILY PHYSICIANS, Lubbock, Sep 23, 1978. Norma Porres, MD, Sec, 4005 24th St, Lubbock, Tex 79410.

■ TEXAS MEDICAL ASSOCIATION, Fall Conference, Austin, Tex, Sep 22–24, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, Tex 78701.

■ TEXAS PEDIATRIC SOCIETY, Amarillo, Tex, Sep 15–16, 1978. Laurance N Nickey, MD, District Chairman, 1515 N Oregon St, El Paso, Tex 79902.

WORLD FEDERATION OF NUCLEAR MEDICINE AND BIOLOGY, Washington, DC, Sep 17–21, 1978. 1629 K St, NW, Suite 700, Washington, DC 20006.

OCTOBER

AMERICAN ACADEMY OF PEDIATRICS, Chicago, Oct 21–26, 1978. Robert Frazier, 1801 Hinman, Evanston, IL 60204.

AMERICAN COLLEGE OF ALLERGISTS, 2nd Intl Symposium on Food Allergy, Mexico City, Oct 16–20, 1978. Frances P White, 2141 14th St, Boulder, CO 80302.

AMERICAN COLLEGE OF CHEST PHYSICIANS, Washington, DC, Oct 29–Nov 2, 1978. Alfred Soffer, MD, 911 Busse Highway, Park Ridge, IL 60068.

AMERICAN COLLEGE OF GASTROENTEROLOGY, New Orleans, Oct 23–29, 1978. Daniel Weiss, 299 Broadway, New York 10007.

AMERICAN COLLEGE OF SURGEONS, San Francisco, Oct 16–20, 1978. C Rollins Hanlon, MD, 55 E Erie St, Chicago 60611.

AMERICAN DENTAL ASSOCIATION, Anaheim, Calif, Oct 22–26, 1978. C Gordan Watson, MD, 211 E Chicago, Chicago 60611.

AMERICAN GROUP PRACTICE ASSOCIATION, New Orleans, Oct 25–28, 1978. W Grayburn Davis, MD, 20 S Ouaker Lane, Alexander, VA 22314.

AMERICAN INSTITUTE OF ULTRASOUND IN MEDICINE, San Diego, CA, Oct 19–23, 1978. 6161 N May, Oklahoma City 73116.

AMERICAN MEDICAL ASSOCIATION, 2nd Annual Jail Conference, Chicago, Oct 27–28, 1978. 535 N Dearborn St, Chicago 60610.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES, New Orleans, Oct 22–26, 1978. John Cooper, MD, 1 Dupont Cir, NW, Washington, DC 20036.

ASSOCIATION OF LIFE INSURANCE MEDICAL DIRECTORS OF AMERICA, Atlanta, Oct 22–24, 1978. Harold S Kost, MD, John Hancock, Boston 02117.

CENTER FOR CHINESE MEDICINE, Los Angeles, Oct 28–29, 1978. Pedro Chan, PhD, 230 S Garfield Ave, Monterey Park, CA 91754.

THE CENTRAL ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS, Kansas City, MO, Oct 13–15, 1978. W B. Goddard, MD, 2020 Wadsworth, Lakewood, CO

▪ PANHANDLE DISTRICT MEDICAL SOCIETY, Amarillo, Tex, Oct 21, 1978. Carlie Umphres, Box 3276, Amarillo, Tex 79604.

SOCIETY FOR CLINICAL AND EXPERIMENTAL HYPNOSIS, Asheville, NC, Oct 17–22, 1978. Mrs Marion Kenn, Admin Dir, 129A Kings Park Dr, Liverpool, NY 13088.

▪ TEXAS ACADEMY OF FAMILY PHYSICIANS, San Antonio, Oct 15–17, 1978. Donald C Jackson, 1901 N Lamar Blvd, Austin TX 78705

NOVEMBER

AMERICAN ASSOCIATION OF BLOOD BANKS, New Orleans, Nov 4–9, 1978. Ben F Peake, 1828 L St, NW, Washington, DC 20036.

AMERICAN ASSOCIATION FOR CLINICAL IMMUNOLOGY AND ALLERGY, Miami Beach, FL, Nov 12–16, 1978. H. Silber, PO Box 912, Omaha, NE 68101.

AMERICAN ASSOCIATION OF GYNECOLOGICAL LAPAROSCOPISTS, Hollywood, Fla, Nov 16–19, 1978. Jordan M Phillips, MD, 11239 S Lakewood, Downey, Calif 90241.

AMERICAN CANCER SOCIETY, INC, New York, Nov 9–11, 1978. Lane W Adams, 777 Third Ave, New York 10017.

AMERICAN CONGRESS OF REHABILITATION MEDICINE, New Orleans, Nov 12–17, 1978. Creston C Herold, 30 N Michigan Ave, Chicago 60602.

AMERICAN HUMANE ASSOCIATION, Miami, Nov 26–29, 1978. Kathern Bond, 5251 S Roslyn St, Englewood, Colo 80110.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Petersburg Beach, Fla, Nov 8–12, 1978. Lorraine Loesel, 1740 Broadway, New York 10019.

ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES, Washington, DC, Nov 26–30, 1978. RADM Walter Welham, MC, USN Ret, 10605 Concord, Suite 306, Kensington, Md 20795.

AMERICAN SOCIETY OF CYTOLOGY, Miami, Nov 7–11, 1978. WR Lang, MD, Sec, Health Sciences Center, 130 S Ninth St, Suite 1006, Philadelphia 19107.

AMERICAN SOCIETY OF PLASTIC AND RECONSTRUCTIVE SURGEONS, Hollywood, FL, Nov 5–10, 1978. Dallas F Whaley, CAE, 29 E Madison, Chicago 60602.

MEDICAL SOCIETY OF THE US & MEXICO, Guadalajara, Jalisco, Mexico, Nov 15–18, 1978. Carolyn Parsons, 3161 N Pantano Rd, Tucson, Ariz 85715.

NATIONAL FIRE PROTECTION ASSOCIATION, Montreal, Nov 13–15, 1978. Charles S Morgan, 470 Atlantic Ave, Boston 02210.

▪ NATIONAL JOINT PRACTICE COMMISSION, Dallas, Nov 9–11, 1978. WB Schaffrath, PhD, Dir, 35 E Wacker Dr, Suite 1990, Chicago 60601.

SOUTHERN MEDICAL ASSOCIATION, Georgia World Congress Center, Nov 11–14, 1978. 2601 Highland Ave, Birmingham, Ala 35205.

▪ TEXAS MEDICAL ASSOCIATION, House of Delegates, Austin, Tex, Nov 11–12, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin 78701.

DECEMBER

AMERICAN ACADEMY OF DERMATOLOGY, San Francisco, Dec 2–7, 1978. Bradford W Claxton, 820 Davis St, Evanston, Ill 60201.

▪ SOUTHWESTERN GYNECOLOGIC ASSEMBLY, Dallas, Dec 7–9, 1978. 3630 Noble Ave, Dallas 75204.

SEPTEMBER

Anesthesiology

Title: Annual Meeting, Texas Society of Anesthesiologists

Sponsors: Texas Society of Anesthesiologists, Austin

Location of course: Galveston

Date: Sept 16, 1978

Duration: 1 day; Saturday; 8 am–5 pm; 7 total course hours

Fee: Fee for nonmembers to be announced

Designed for: Specialists in Anesthesiology

Credit: Category 1, AMA Physician's Recognition Award; 6¼ hours

Teaching methods: Audiovisual materials, lecture, open question, panel

Contact: John A. Jenicek, MD, UT Medical Branch, 800 Mechanic St, Galveston 77550

Arthritis & Rheumatism

Title: Current Topics in Arthritis

Sponsors: Rheumatic Diseases Unit, Dept of Internal Medicine, Southwestern Medical School, UTHSC at Dallas; A. Webb Roberts Center for Continuing Education; North Texas Chapter, Arthritis Foundation

Location of course: Zale Lecture Hall, UTHSC, Dallas

Date: Sept 14–16, 1978

Duration: Continuous; 3 days

Fee: $50

Credit: AMA Physician's Recognition Award; 15 hours

Contact: Tom Hulse, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas, TX 75235

Cardiovascular Disease

Title: Current Topics in Coronary Artery Disease—1978

Sponsors: Baylor College of Medicine, Department of Medicine

Location of course: Auditorium, Jesse H. Jones Library Bldg, Texas Medical Center

Date: Sept 7–9, 1978

Duration: 2½ days

Fee: $175

Designed for: Internists; Cardiologists; General practitioners; Specialists in Family Medicine

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Forensic Medicine

Title: Legal Process in Mental Health and Family Law

Sponsors: UT Health Science Center at San Antonio; Wilford Hall USAF Medical Center; Criminal Law Association, St Mary's School of Law

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio; St Mary's University Law School

Date: September 29, 1978

Duration: Continuous; 1 day; 1–4 pm; 7–10 pm (at St Mary's)

Fee: $20

Enrollment: Maximum, 175

Credit: Category 1, AMA Physician's Recognition Award; 5 hours

Teaching methods: Audiovisual materials, lecture, open question

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

General Medicine

Title: Basis for Making Therapeutic Decisions—Update on Common Problems

Sponsors: Division of Clinical Pharmacology, Southwestern Medical School, UTHSC at Dallas

Location of course: Zale Lecture Hall, UTHSC, Dallas

Date: Sept 29–30, 1978

Duration: Continuous; 2 days

Fee: $150, practicing physicians, pharmacists; $75, residents, nurse practitioners, physician assistants

Designed for: Specialists in Anesthesiology, Family Medicine, Internal Medicine, Pediatrics, Psychiatry; allied health professionals

Credit: AMA Physician's Recognition Award; 14 hours

Contact: Norma Wilcox, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas TX 75235 (214) 688-2166

Title: Clinical Psychopharmacology Update

Sponsors: Texas Tech University School of Medicine; West Texas Chapter, American Psychiatric Association

Location of course: SouthPark Inn, Loop 289 and Indiana, Lubbock

Date: Sept 9, 1978

Duration: Continuous; 1 day

Fee: $20

Designed for: Specialists in Psychiatry; General practitioners

Credit: AAFP Elective; Category 1, AMA Physician's Recognition Award; APA; 5 hours

Contact: Rita Chrane, Educational Development and Continuing Education, TTUSM, Box 4569, Lubbock, TX 79409

Internal Medicine

Title: Cancer: A Multidisciplinary Approach

Sponsors: Continuing Medical Education Department of Short Courses, Department of Internal Medicine-Division of Oncology, UT Medical Branch, Galveston; UT Medical Branch Cancer Center

Location of course: Galvez Hotel/Motel, 21st & Seawall, Galveston

Date: September 13–16, 1978

Duration: Continuous; 2½ days; 8 hours instruction per day; 8 am–5 pm; 20 total course hours

Fee: $140

Designed for: General practitioners; Specialists in Surgery, Radiology, Internal Medicine

Enrollment: Minimum, 60; Maximum, 120

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 20 hours

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Contact: Nekee Susan McNulty, Coordinator Continuing Medical Education Department of Short Courses, UT Medical Branch, 2nd Floor, Gail Borden Building, Galveston 77550

Obstetrics & Gynecology

Title: Great Debates

Sponsors: Department of Obstetrics & Gynecology, Baylor College of Medicine, Houston

Location of course: Auditorium, Jesse Jones Library Building, Texas Medical Center, Houston

Date: Sept 21–23, 1978

Duration: Continuous; 2½ days; 6 hours instruction per day; 15 total course hours

Fee: $150

Designed for: Specialists in Obstetrics & Gynecology

Enrollment: Maximum, 500

Credit: Category 1, AMA Physician's Recognition Award; 15 hours

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Pediatrics

Title: Burns in Children

Sponsors: American Burn Association, Shriners Burns Institute of Galveston, The University of Texas Medical Branch Division of Continuing Education

Location of course: Flagship Hotel and Shriners Burns Institute; Galveston

Date: Sept 7-9, 1978

Fee: Physicians, $175; Others, $100

Designed for: Physicians, nurses, occupational therapists, respiratory therapists, physical therapists, dietitians and other members of the burn team

Contact: Dr Hugo F. Carvajal, Shriners Burns Institute, 610 Texas Ave, Galveston 77550, (713) 765-2306

Title: 2nd Annual Current Concepts in Pediatrics

Sponsors: Texas Tech University School of Medicine

Location of course: SouthPark Inn, 3201 South Loop 289, Lubbock, Tex

Date: Sept 29–30, 1978

Duration: Continuous; 1½ days, Friday–Saturday

Fee: $50

Designed for: General practitioners; Specialists in Pediatrics

Credit: AAFP Prescribed, Category 1, AMA Physician's Recognition Award, AOA

Contact: Roy C. Allen, EdD, Director, Educational Development and Continuing Education, Texas Tech University School of Medicine, PO Box 4569, Lubbock, Tex 79409

Psychiatry

Title: Canadian Culture and the Healing Arts—Film Festival '78

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio Auditorium, 7703 Floyd Curl Dr, San Antonio

Date: Sept 15-17, 1978

Duration: Continuous; 3 days; Friday—Sunday

Designed for: General practitioners; Specialists in Psychiatry

Credit: Category 1, AMA Physician's Recognition Award; 16 hours

Teaching methods: Audiovisual materials, lecture

Contact: Sharon Ray, Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

OCTOBER

Emergency Care

Title: UTMB Trauma Conference

Sponsors: Continuing Medical Education Dept, Division of Short Courses, UT Medical Branch, Galveston

Location of course: Galvez Hotel/Motel, 21st & Seawall, Galveston

Date: Oct 12–14, 1978

Duration: Continuous; 2½ days; 8 hours instruction per day; Thursday–Saturday; 8 am–5 pm; 20 total course hours

Fee: $140

Designed for: General practitioners; Specialists in Emergency Care, Surgery, Internal Medicine

Enrollment: Minimum, 60; Maximum, 150

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 20 hours

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Contact: NeKee McNulty, Coordinator, CME—Short Courses, 2nd Floor, Gail Borden Bldg, UT Medical Branch, Galveston 77550

Family Medicine

Title: Advances in Laboratory Medicine

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio

Date: Oct 7–8, 1978

Duration: Continuous; 2 days; Saturday–Sunday

Fee: $75

Designed for: General practitioners; Specialists in Primary Care

Enrollment: Minimum, 20; Maximum, 120

Credit: Category 1, AMA Physician's Recognition Award

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

General Medicine

Title: Southwest College Health Association Annual Meeting

Sponsors: UT Health Science Center at San Antonio; Southwest College Health Association

Location of course: El Tropicano Hotel, San Antonio

Date: Oct 19–21, 1978

Duration: Continuous; 3 days; Thursday, 1–6 pm, Friday–Saturday, 8am–5 pm

Fee: To be announced

Enrollment: Minimum, 75; Maximum, open

Credit: AAFP; Category 1, AMA Physician's Recognition Award; 4 hours

Teaching Methods: Audiovisual materials, lecture, open question

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Neurology

Title: Lumbar Disc Disease

Sponsors: Division of Neurological Surgery, Southwestern Medical School, UTHSC at Dallas, Texas Association of Neurological Surgeons

Location of course: Zale Lecture Hall, UTHSC, Dallas

Date: Oct 6–7, 1978

Duration: Continuous; 2 days

Designed for: Specialists in Neurology, Orthopedic Surgery

Credit: AMA Physician's Recognition Award; 6 hours

Contact: Norma Wilcox, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas TX 75235 (214) 688-2166

Obstetrics & Gynecology

Title: What's New and Important in OB-Gyn

Sponsors: Department of Obstetrics & Gynecology, UT Health Science Center at Dallas

Location of course: UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas

Date: Oct 17–21, 1978

Duration: Continuous; 5 days; 40 total course hours

Designed for: Specialists in Obstetrics & Gynecology

Credit: Category 1, AMA Physician's Recognition Award; 40 hours

Teaching Methods: Audiovisual materials, lecture, open question, seminar

Contact: June Bovill, Assistant to Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Radiology & Radioisotopes

Title: Seminar with Specialists in Diagnostic Radiology

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio

Date: Oct 26–27, 1978

Duration: Continuous; 2 days; Thursday–Friday; 12 total course hours

Fee: To be announced

Designed for: Specialists in Radiology

Credit: Category 1, AMA Physician's Recognition Award; 12 hours

Teaching Methods: Audiovisual materials, lecture, open question

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

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There is no experience in pregnant women who have received this drug.

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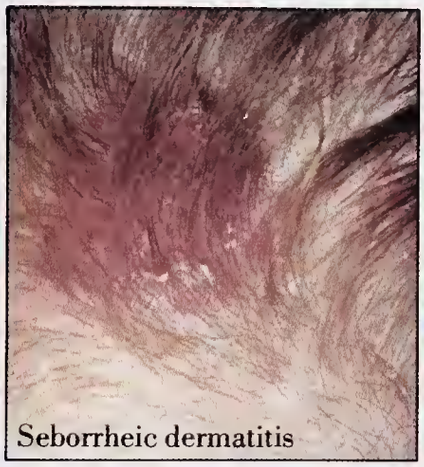
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20 ml

60 ml

Immunohemolytic anemia in children: a review

Ugo Carpentieri, MD, ScD Mary Ellen Haggard, MD Lillian P. Gustavson, MD Lillian H. Lockhart, MD

Part I

Introduction

Immunohemolytic anemia is a syndrome characterized by hemolysis, anemia, and positive antihuman globulin test (AGT, Coombs test). This condition is caused by the reaction of acquired antibodies with the patient's own erythrocytes.

A brief review of some basic concepts will facilitate an understanding of the diagnosis and treatment of immunohemolytic anemia.

Immunoglobulins

Material which stimulates an immune response is known as *antigen*. The term "immune response" is used here in the restricted sense of synthesis and release of antibodies into body fluids. *Antibody* is a modified protein in the blood or other body fluids, usually formed in response to an antigen and identified by demonstrable reactions. Antibodies are mostly *globulins*, which are defined in this context as the nonalbumin fraction of the serum proteins. More specifically, they are gamma globulins, of which five classes have been recognized: G, M, A, E, D. Because these globulins are involved in immunologic response, they are also called immunoglobulins. This article will deal only with immunoglobulins G and M.

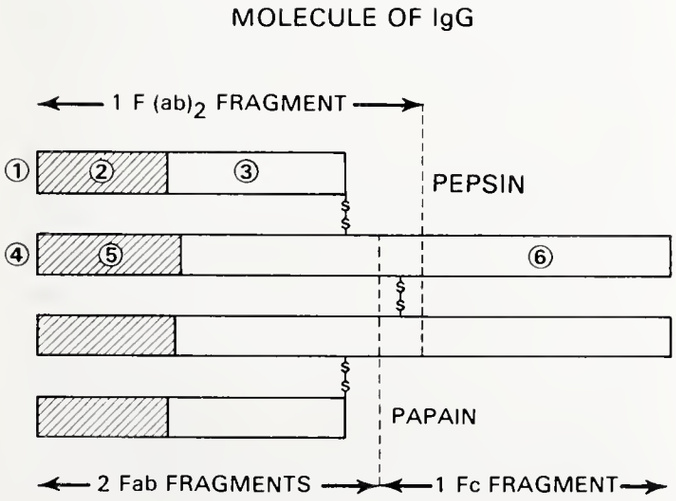
Class G immunoglobulins (IgG) have a Y-shaped molecule (Fig 1) composed of two identical light chains and two identical heavy chains, bound by interchain and intrachain SS bonds. They cross the placenta and have two active binding sites. The half-life of IgG is 23 to 25 days. Enzymatic treatment allows us to distinguish a Fab fragment, which binds the antigen (ab: antigen binding), from a F_c fragment, which has a corresponding site on macrophages and other cells. Class M immunoglobulins (IgM) also have a Y-shaped molecule, but they exist mainly in pentamer aggregates (Fig 2). IgM are much heavier than IgG, do not cross the placenta, and have five active binding sites. Their half-life is five to six days. Antierythrocyte immunoglobulins have specificity for erythrocyte antigen systems, of which ABO, Rh, P, and Ii are most frequently involved.

Class M and, less frequently, class G immunoglobulins may fix complement. Complement is a system of fine serum components and several subcomponents, with intermediately active complexes (Fig 3). Complement components facilitate the adherence of cells to macrophages, the induction of phagocytosis, and the lysis of cells. When complement is fixed to the cells and the reaction proceeds to lysis, holes are punched through the erythrocyte membrane and osmotic damage occurs (potassium leaks out of the cell, sodium and water flow into the cell, and the cell bursts).

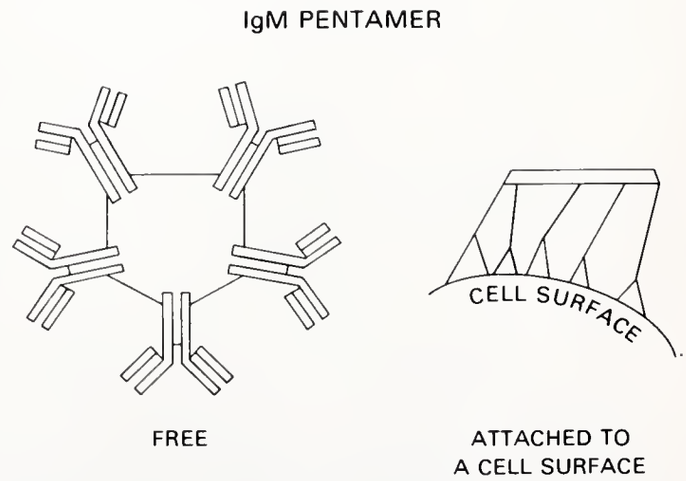
Erythrocyte Antibodies

Erythrocyte antibodies can be classified as *alloantibodies*

1. (1) Light chain with (2) variable and (3) constant parts. (4) Heavy chain with (5) variable and (6) constant parts. Treatment with pepsin and papain gives fragments as outlined by dotted lines.



2. Class M immunoglobulins have a Y-shaped molecule, but they exist mainly in pentamer aggregates.



and *autoantibodies*. Alloantibodies, formerly known as isoantibodies, are produced by an individual who lacks the corresponding antigen; they react against antigens of other individuals of the same species. Alloantibodies occur naturally in persons who have no history of prior immunization with blood, and the factors governing their production are largely unknown. The stimulus may be an antigen found in nature (probably in food) which is very similar to erythrocyte antigens. Examples are the anti-A and anti-B antibodies present in individuals of blood group O or blood groups B and A who lack the corresponding antigens. Alloantibodies may be passively transmitted when incompatible plasma is accidentally transfused, or actively formed by exposure to incompatible erythrocytes as may happen in pregnancy or in blood transfusion.

Autoantibodies are those produced by an individual against his own antigens. They are also termed autoimmune antibodies. They may occur naturally in very low amount or may be actively acquired.

Alloantibodies and autoantibodies may be classified as *complete* and *incomplete*.

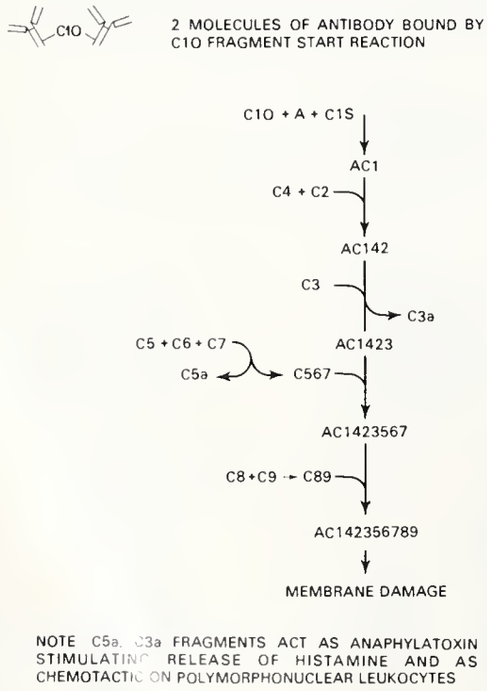
A complete antibody is itself sufficient to cause agglutination or hemolysis, which can be shown to occur in saline suspension. Conversely, an incomplete antibody needs a bridging molecule to produce agglutination. A saline suspension of red cells with attached incomplete antibodies will not agglutinate without pretreatment with enzymes (such as papain) or colloidal substances (such as albumin, high-molecular-weight dextran, and gum acacia). These substances modify the negative charges which keep the erythrocytes apart, and induce changes in the configuration of the antibody molecule, making possible the bridging among red cells. Agglutination in a colloid-suspending medium, but not in saline, may therefore indicate an incomplete antibody, while agglutination in saline suspension is characteristic of complete antibodies.

Further subdivision of alloantibodies and autoantibodies is possible when their thermal specificity is considered. Accordingly, they are defined as *cold*, *warm*, and *biphasic* antibodies. Cold antibodies are maximally reactive at 4°C, while warm ones react optimally at body temperature. Both cause agglutination of red blood cells. Antibodies which bind antigens at low temperature (usually 20-25°C or below) and cause hemolysis at body temperature are biphasic. Other names still in use for this group are cold-warm antibodies and Donath-Landsteiner antibodies.

Alloantibodies are mainly cold complete agglutinins and fix the complement. They are directed against erythrocyte antigens of ABO, Lewis, P, and Ii systems. Autoantibodies are mostly warm incomplete agglutinins, and in half of the cases do not fix the complement. Their amount is relatively low and they are usually directed against Rh antigens. In rare instances these antibodies also react with Rh-null cells, that is, cells without Rh antigen. In some other cases, no specificity can be determined because standard reference antigens are not available. Cold autoantibodies also exist, but are less common. They are class M agglutinins, are formed in large amounts, and give high serum titers. They fix the complement and are usually specific for the Ii antigen system.

To summarize (Fig 4), erythrocyte antibodies can be distinguished as alloantibodies and autoantibodies, complete and incomplete. They may be further classified as cold, warm, or biphasic. In particular, complete antibodies are usually agglutinating class M cold-reacting immunoglobulins, while incomplete antibodies are mainly agglutinating class G warm-reacting immunoglobulins. Biphasic antibodies are class G hemolyzing complete antibodies. Less frequently, different combinations may be found; for example, IgG complete antibodies such as anti-A and

3. Complement cascade.



anti-B agglutinins formed by group O individuals in ABO group system.

Coombs Test

IgG coating antibodies are detected by antihuman globulin test (AGT) or Coombs test. The Coombs reagent is an antihuman globulin antiserum which contains antibodies to human immunoglobulins and complement. These antibodies can bind at two active sites to the antibody coating the sensitized red cells, form bridges between cells, and produce visible aggregates (agglutination) (Fig 5). The Coombs test detects *in vivo* coating of erythrocyte surface by incomplete antibodies (direct Coombs) or the presence of free antibodies in the serum (indirect Coombs). It also detects complement fixed to red cells and amplifies the demonstration of complete antibodies; the latter is particularly useful in cases of weak or otherwise undetectable reactions. The Coombs test reveals biphasic hemolysins as well. A direct Coombs test is useful in the diagnosis of hemolytic disease of the newborn, autoimmunohemolytic anemia, and hemolytic post-transfusion reaction, while the indirect test is used mainly in the detection of unbound or unknown serum antibodies or unrecognized erythrocyte antigens (Fig 6).

False positive and false negative Coombs tests can result from a faulty technique. Reticulocytosis, pernicious anemia, collagen diseases, lead and phenylhydrazine intoxication, and mechanical stress (eg, heart valve prosthesis) also may cause false-positive reactions. A false-negative test sometimes occurs in the case of hemolytic disease of the newborn as a result of ABO incompatibility.

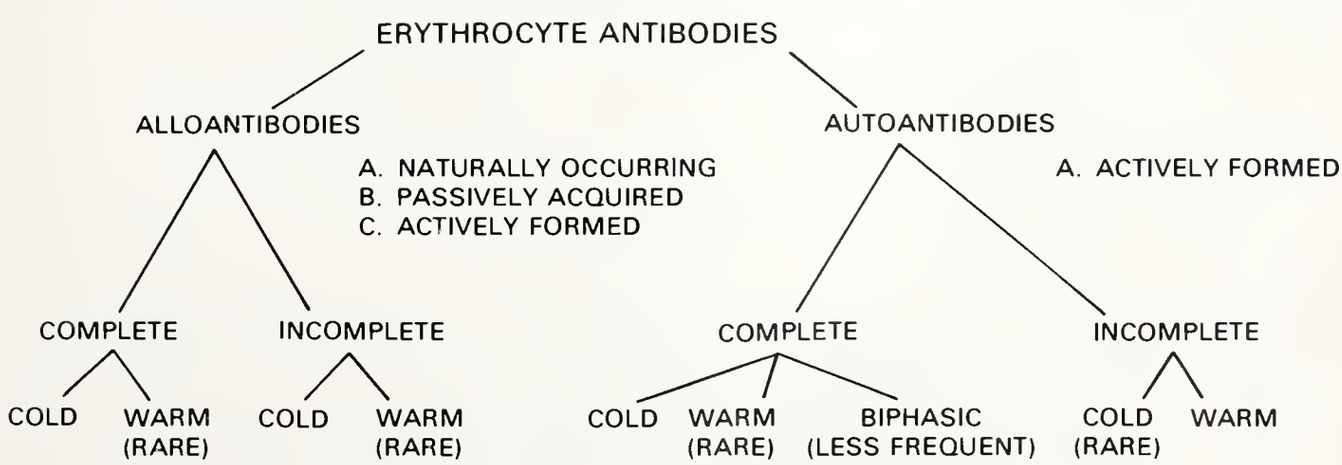
Among patients with immune hemolytic anemia, 2-4% have a negative reaction to the Coombs test. This usually occurs when all antigen sites are blocked in advance by either antibody molecules or complement complex (steric hindrance). Other possible causes are inadequate washing of red cells, an insufficient amount of added anti-IgG, configurational changes of IgG molecules above 10°C, and the presence of rare autoantibodies undetected by the usual commercial antiglobulin reagent.

Mechanism of Action of Autoantibodies

Cold complete autoantibodies and Donath-Landsteiner autoantibodies cause erythrocyte damage by hemolysis which is complement-dependent. C1Q, the complement component which combines with antibody, requires two activated antibody-binding sites in close proximity. This situation can be found in a single molecule of IgM (Fig 7). Because of this high efficiency, only 25-50 molecules of IgM are required for detectable C1Q binding compared with the 4,000-5,000 molecules of IgG which are usually necessary. Finally, the complement complex punches a hole in the erythrocyte membrane, causing potassium to leak from the cell and sodium and water to enter. The cell swells and bursts, giving rise to intravascular hemolysis.

Conversely, the warm incomplete autoantibodies may or may not fix complement. They themselves do not agglutinate red blood cells; rather, they cause damage by adhering to the erythrocytes. The coated cells are partially phagocytized by macrophages which have special recep-

4 Summary of erythrocyte antibodies. Autoantibodies may also occur naturally but in very low amount, and are not considered here.



tors for the Fc portion of IgG (Fig 7). The resulting spherocytes and other IgG-coated red blood cells are trapped and phagocytized by the reticuloendothelial cells of the spleen and, less frequently, liver and bone marrow (sequestration or extravascular hemolysis). This kind of hemolysis is dependent on type, distribution, and concentration of both antigen and antibody and is facilitated by a decrease in plasticity of antibody-coated erythrocytes. When antibody and complement are fixed, the cell is cleared by the phagocytic elements of both liver and spleen. In the absence of complement activation and with moderate cell sensitization, the spleen, with its slow blood flow, is the preferential site of clearance. Extravascular hemolysis is a slower, less explosive process than circulatory hemolysis, but it may occasionally present as an acute, rapidly progressive episode of extreme erythrocyte damage.

A small number of antibody-coated cells may also be destroyed by cytotoxic lymphocytes in the peripheral blood. This energy-dependent process occurs upon simple cell contact, without phagocytosis. Finally, other autoantibodies cause damage by hemoagglutination, and in many instances complement is not required.

Most of the information in Part I is from the following references:

1. Pirofsky B: Autoimmunization and the Autoimmune Hemolytic Anemias. Baltimore, Williams & Wilkins Co, 1979.
2. Tocatins LM, Brown EB, Moore CV, Eds: Progress in Hematology. New York, Grune & Stratton, Inc, 1969, vol 6.
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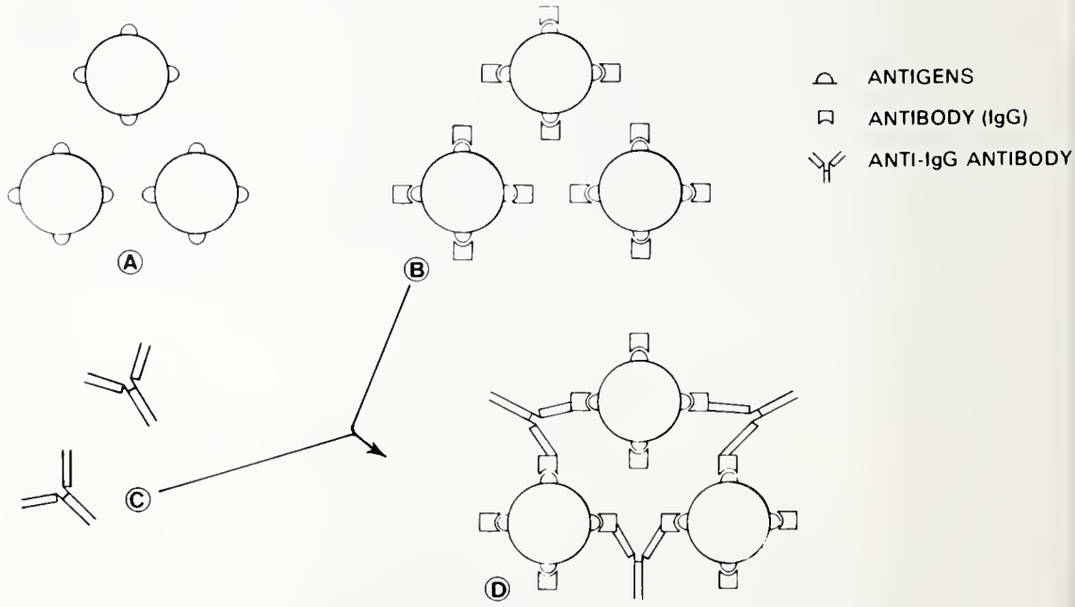
Part II

Disorders involving alloantibodies such as hemolytic disease of newborn and post-transfusional syndrome

5. Mechanism of Coombs test (see text). In direct Coombs, anti-IgG antibodies are already fixed on the red cells; in indirect Coombs, anti-IgG antibodies are free in the serum and become fixed to the red cell only after incubation at 37°:C for 30 minutes.

The free end of anti-IgG antibodies (F_c fragments) attaches to a corresponding site on macrophage for phagocytosis. Coombs test reveals anticomplement antibodies and anti-IgM antibodies as well.



(A) RED CELL WITH ANTIGENS

(B) RED CELL ANTIGENS COVERED WITH ANTIBODIES (IMMUNOGLOBULINS G, IgG)

(C) ANTI-IgG ANTIBODIES

(D) ANTI-IgG ANTIBODIES AGGLUTINATE THE RED CELLS

by incompatible blood are omitted from the following discussion. Only autoimmune hemolytic anemias are considered.

Etiology of Autoimmune Hemolytic Anemia

The etiology of autoimmune hemolytic anemia is largely unknown. Acute transient cases occur during or immediately after clinically well defined infections[1] such as rhinopharyngitis, influenza, pneumonia, measles, varicella, mumps, infectious mononucleosis,[2] cytomegalic inclusion disease,[3] and viral hepatitis.[1] Chronic cases can be associated with non-Hodgkin's lymphoma, sarcoidosis, systemic lupus erythematosus,[4] idiopathic thrombocytopenic purpura, rheumatoid arthritis, and growth failure with microcephalia.[3]

Generally speaking, warm agglutinins are associated with lymphoproliferative disorders, many viral diseases, systemic lupus erythematosus, sarcoidosis, and drugs, while cold agglutinins are associated with infectious mononucleosis, ulcerative colitis,[5] and infections from *M pneumoniae*[6] and *L monocytogenes*.[7]

Cold hemolysins or Donath-Landsteiner autoantibodies (biphasic or cold-warm antibodies) are found in syphilis and in paroxysmal cold hemoglobinuria following viral illness.[8]

Acute cases of autoimmune hemolytic anemias are sometimes associated with the use of antibiotics such as penicillin,[9] streptomycin, tetracycline,[10] and cephalothin[11] and drugs such as α-methyldopa,[12] phenacetin, quinine, isoniazid, para-aminosalicylic acid,[13] and tolbutamide. The antibiotics act as haptens (incomplete antigens); they induce antibody formation only after binding to a macromolecular structure (tissue proteins, erythrocytes membrane). The antibody which binds to the drug (*not* to the cell) forms a drug-antibody complex capable of fixing complement to the erythrocyte as an innocent bystander and inducing hemolysis. This process, however, is mild and occurs only when a high dosage of the drug is given (eg, penicillin in subacute bacterial endocarditis). Other drugs such as α-methyldopa behave differently; they induce the formation of IgG antibodies with anti-Rh specificity which do not require the presence of the drug to react with normal erythrocytes. The drugs must be given for three to four months, and the incidence increases with increasing dosage. The Coombs test becomes positive and sometimes hemolytic anemia with splenomegaly follows.

Pathogenesis

There are several hypotheses for the development of red cell autoantibodies:

1. Modification of red-cell antigens by viruses, bacteria, drugs, and tumoral by-products.[14] This hypothesis, however, does not explain why these antibodies so often have Rh specificity and why they also react with normal red cells.

6. Coombs tests synonyms.

Name	Synonym	Meaning
1. Coombs reagent	Antiglobulin serum; anti-human globulin serum; anti-whole human serum	Rabbit antibody against whole human serum
2. Direct Coombs test*	Direct anti-globulin test	Detects antibody fixed to washed red cells by adding Coombs reagent and observing for agglutination*
3. Indirect Coombs test	Indirect anti-globulin test	Detects circulating serum red cell antibodies by incubating patient's serum with a panel of known red cells, washing the cells, and then performing direct Coombs test
4. Anti-non-gamma Coombs reagent	Anti-non-gamma globulin serum	Coombs reagent absorbed with human gamma globulin
5. Anti-non-gamma Coombs test	Non-gamma antiglobulin	Detects complement fixed to red cells
6. Specific anti-sera, ie, anti-IgG, anti-IgM, anti-IgA, anti-C_1, anti-C_3, etc	No synonyms	Identifies specific immunoglobulin class of antibody fixed to red cells, or the specific component of complement fixed to red cells

*The test is read as negative or positive and the strength of the reaction is graded 1+ to 4+. The strength as graded does not necessarily correlate with the severity of the disease process.

2. Production of antibodies against viral or bacterial components which share common antigens with red blood cells[6] and thereby cross-react with them.

3. Weak antigens that alone are insufficient to stimulate antibody formation, may do so when they interact with strong exogenous antigen-like viruses.[15]

4. Production of antibodies normally occurring in quantities insufficient to elicit agglutination is suddenly increased, as may occur in infections from *M pneumoniae*.[6]

5. Somatic mutation[16] may result in clones of cells forming new erythrocyte autoantibodies. This is believed to take place in malignant lymphoproliferative disorders. Some other clones may also form normal antibodies, but in continuous and abnormally high quantity.

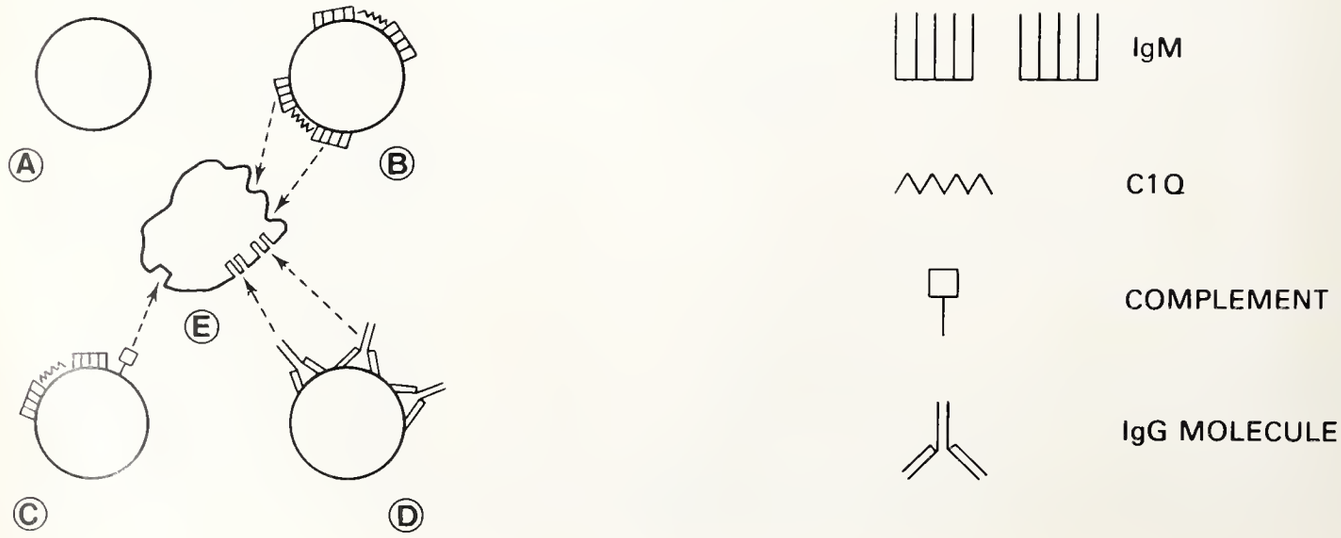
6. Failure of body control mechanisms over antibody formation. At least two of these mechanisms are involved: one is the availability of large amount of antigens which block antibody formation[17] (eg, ABO antigens, rarely Rh antigens), the other is the uninterrupted elimination of continually emerging cell clones forming the corresponding antibodies.[18] Drugs such as alpha-methyldopa (Aldomet)[19] may induce profound disturbance of this regulatory function.

Symptoms and Signs

In a review of 80 pediatric patients,[1] fever, anorexia, vomiting, diarrhea, dehydration, and abdominal pain were found to be the most frequent signs and symptoms in acute transient cases. Some hemolytic episodes begin with shocklike state, agitation, or prostration; others just with vague malaise. Constant physical findings are pallor, tachycardia, and jaundice. Red cells range from 600,000 to 3,000,000/cu mm, with anisopoikilocytosis, polychromasia, spherocytosis, erythroblastosis, and reticulocytosis, sometimes following transient leukopenia and reticulopenia. Leukocytosis is usually present (10-50,000 WBC/cu mm) and sometimes promyelocytes and myelocytes are noted. Thrombocytopenia may also occur. Bone marrow aspirate shows erythroid hyperplasia with essentially no change in myeloid elements and megakaryocytes. Mixed-type or unconjugated hyperbilirubinemia, hypersideremia, and hemoglobinemia and, in many cases, hemoglobinuria are demonstrated. Serum protein electrophoresis shows no abnormality. Two-thirds of the patients have positive anticomplement-type antiglobulin tests, with or without cold agglutinins, while one-third show warm agglutinins often associated with positive anticomplement antiglobulin tests. Biphasic hemolysins are demonstrated less frequently.

In chronic cases, the onset of hemolysis is insidious and progressive. Pallor, jaundice, and hepatosplenomegaly are the dominant signs, while hemoglobinuria is

7. Mechanisms of action of autoantibodies (see text). (A) Uncoated red cells. (B) Red cell coated with IgM molecules. C1Q binds two molecules of IgM or two parts of the same molecule. (C) Red cell coated with IgM molecule and complement. (D) Red cell coated with IgG. (E) Macrophage, with nonspecific sites for IgM molecule and specific sites for complement and IgG molecules.



rarely present. The hematologic picture is identical to that of the acute cases, but the agglutinins are usually of the warm type, and positive anticomplement antiglobulin tests are associated with half of the cases.

The frequency of transient cases is significantly higher in children (especially in the first four years of life) than in adults. It has also been noted that patients showing complement-type antiglobulin test have a transient course with acute onset and full recovery in less than three months, while patients with warm agglutinins have a chronic course, with slow onset and underlying disorders such as thrombocytopenia and immunological deficit. History of antecedent diseases is often associated with chronic cases and warm agglutinins.

Prognosis and Treatment

The prognosis for a patient with autoimmune hemolytic anemia is good, although recovery may be slow (months). The disease is most often self-limiting. Death is unusual and is generally secondary to underlying disorders or complications such as hemorrhage and infection. On occasion the acute transient variety may be fulminating and resistant to treatment.

Identification and correction of underlying disease is the primary purpose of therapy. Every effort should also be made to identify the antibody so that the corresponding antigen can be avoided. Therefore, a blood sample should be sent to the appropriate laboratory *before treatment*. Another goal of treatment, particularly when agglutinins are involved, is to avoid a large supply of erythrocytes to the hemolytic process. Accordingly, blood transfusions must be restricted to an emergency and to the amount necessary to keep the patient out of cardiac embarrassment.[20] At this point the problem arises of what blood to transfuse. Typing and cross-matching tests are often impossible to perform because of spontaneous and rapid agglutination of erythrocytes. If the patient's blood group is known, blood of the same group should be given. If, however, the patient's blood group cannot be determined, the least incompatible blood should be transfused. As a last resort, type O Rh-negative blood may be used, in that warm agglutinins are mainly anti-Rh antibodies. This point, however, is highly controversial, and nothing definite can be suggested at present.[21] Blood transfusions are also contraindicated in the presence of cold agglutinins; donor erythrocytes are agglutinable faster than the patient's own red cells whose complement-covered surface blocks the antibody-antigen reaction. In most cases, rest in bed and warm environment are sufficient to stop hemolysis and raise the hemoglobin level. When transfusion is mandatory, "in-line" blood warmers are recommended to keep blood at 37°C, although their efficacy has not been proved.[21] It is considered advisable to use them with warm agglutinins as well, because of the possible presence of cold-type antibodies which have a particularly broad thermal amplitude.

Corticosteroids are often effective when warm agglutinins are involved.[22-24] A response is usually obtained in seven to ten days. Further corticosteroid therapy is rarely successful after three weeks of negative results. Because relapse frequently occurs when steroids are reduced or discontinued, they must be decreased gradually, during three to six months. Therapy is reinstituted when relapse occurs and corticosteroids are kept at a dosage sufficient to control the hemolytic process. Corticosteroids are much less efficient when cold agglutinins are present. Their mechanism of action is poorly understood, but it is known that they decrease the synthesis of antibodies,[23] the splenic sequestration,[22] and the phagocytic activity of the reticuloendothelium. They also modify the affinity of antibody to antigenic sites.[25]

Immunosuppressive agents[26] (cyclophosphamide, azathioprine, chlorambucil, 6-mercaptopurine) which repress immunoglobulin formation, have been used in autoimmune hemolytic anemia, with variable results and many undesirable side effects. The drugs exert their principal effect when administered in the induction phase. For instance, 6-mercaptopurine inhibits synthesis of antibodies by plasma cells under antigenic stimulation,[27] but it is not very efficient in suppressing an ongoing immunologic response. Coversely, cyclophosphamide can suppress both the induction and the proliferative phase of the immune response.[28]

Many authors prefer splenectomy before the use of immunosuppressive agents.[18] They claim better results while avoiding side effects of the drugs. Splenectomy is particularly indicated when the hemolysis is by sequestration and complement is not the major cause of cell destruction. In this instance the spleen is the main site of red cell clearance. In some cases of autoimmune hemolytic anemia secondary to cold agglutinins, plasmapheresis[21] at 37°C may reduce their level and the degree of hemolysis.

Thymectomy,[24] hyperbaric oxygen,[29] and heparin,[30]

have been proposed as treatment for autoimmune hemolytic anemia, but their efficacy is limited and questionable.

In summary, the recommended therapeutic approach to a patient with autoimmune hemolytic anemia is as follows. Blood transfusions are administered only when strictly necessary and for the amount sufficient to stabilize the patient. Corticosteroid therapy may be useful mainly when warm agglutinins are involved. Further treatment includes splenectomy in case of no response or when steroid toxicity is present. Immunosuppressive agents are indicated when the patient is not a surgical candidate or relapse occurs after splenectomy.

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Anhydrous ammonia burn of the respiratory tract

Martin L. Dalton, Jr, MD Donald L. Bricker, MD

The common fertilizer, anhydrous ammonia, is also an extremely toxic poison. Following accidental exposure, severe burns of the exposed skin, the eyes, and the respiratory tract are quite common. During the past seven years we have treated six of these patients, three of whom required tracheostomy and management using a mechanical ventilator. The symptoms and physical findings are described, as is a three-course plan of management, beginning with the initial management at the stage of the accident progressing to emergency room care and, finally, mechanical ventilator therapy in the surgical intensive care unit. Physicians practicing in rural areas should be alert to the danger of anhydrous ammonia and should be quick to recommend tracheostomy in patients who have any degree of respiratory insufficiency following exposure to anhydrous ammonia. Rules for avoiding injury are also included.

Accidental burns secondary to handling or transferring the popular fertilizer, anhydrous ammonia, are becoming more common. Anhydrous ammonia has become a vital part of American agriculture and has been used in Texas for many years.

Anhydrous ammonia is an ideal fertilizer, as it contains 82% nitrogen.[1] It is a colorless gas with a pungent odor and usually is stored and handled as a pressurized liquid. Anhydrous ammonia is an extremely strong alkali, capable of producing severe caustic burns. Its vaporizing temperature is -28° F and, therefore, burns by freezing also occur. It is extremely soluble in water and approximately half as heavy as air. Because of this extreme solubility, the brunt of the attack is borne by the exposed skin, the conjunctivae, and the mucous membranes of the oropharynx and respiratory tract. Almost all of the injuries occur in the transfer of connections from tank to equipment.

During the past seven years we have treated six of these patients. All have been farmers except for one, a farmer's child. They were all males and their ages ranged from 3 to 65 years. Three patients required tracheostomy and management using a mechanical ventilator. One died, accounting for a mortality of 16.6%. This patient, a 28-year-old man, had massive exposure to anhydrous ammonia on July 21, 1970. He was transferred to our hospital eight days later. In the emergency room, a tracheostomy was performed and treatment with massive doses of steroids and antibiotics was begun. Unfortunately, just as the patient began to improve, a stress ulcer with massive bleeding developed, and vagotomy-pyloroplasty was performed. The patient died two days later, and autopsy findings included chronic interstitial pneumonitis and severe pulmonary hyaline membrane formation (Fig 1).

The patient in the following case report is more typical:

A 45-year-old farmer was brought to our emergency room one hour after suffering anhydrous ammonia burns. His eyes had been irrigated at the accident scene, and on arrival in our emergency room he was in respiratory distress with burns of the face, eyes, and mouth. An immediate tracheostomy was done and a subclavian venous catheter was inserted. A chest x-ray was obtained (Fig 2) and treatment with broad spectrum antibiotics and intravenous steroids was begun. He was examined by an ophthalmologist and transferred to the surgical intensive care unit, where he was maintained with a volume-cycled ventilator with ultrasonic nebulization and 50% oxygen concentration. The glottic edema cleared, and on the fifth day his tracheostomy tube was removed. The patient progressed nicely, taking fluids orally, and was dismissed on his 13th post-injury day, at which time a chest x-ray was normal (Fig 3).

Discussion

Immediately following exposure, the victim feels intense pain in the eyes, mouth, and throat, and also has a sense of suffocation. Because of almost immediate laryngeal edema, the patient frequently cannot speak. The physical findings are those of burns of the face and all exposed skin and, usually, bleeding and ulcerations of the mouth, nose, and oropharynx. Cyanosis is quite common, as is aphonia. Laryngeal stridor is almost universally present. Asphyxiation as a result of laryngeal edema can quickly ensue.

The immediate management of the ammonia burn victim consists in rapid removal from the area, preferably (but not practically) by associates wearing protective gas masks. Copious lavage of the face and eyes with large volumes of water is extremely important. Anhydrous ammonia is quite soluble in water. The airway must be maintained by any convenient manner, and oxygen is ideal, if available. Cardiopulmonary resuscitation is used when necessary.

Transportation by ambulance to a hospital emergency room set up for the handling of such serious accidents is accomplished as quickly as possible. Immediate intubation of the trachea, unless oropharyngeal edema prevents

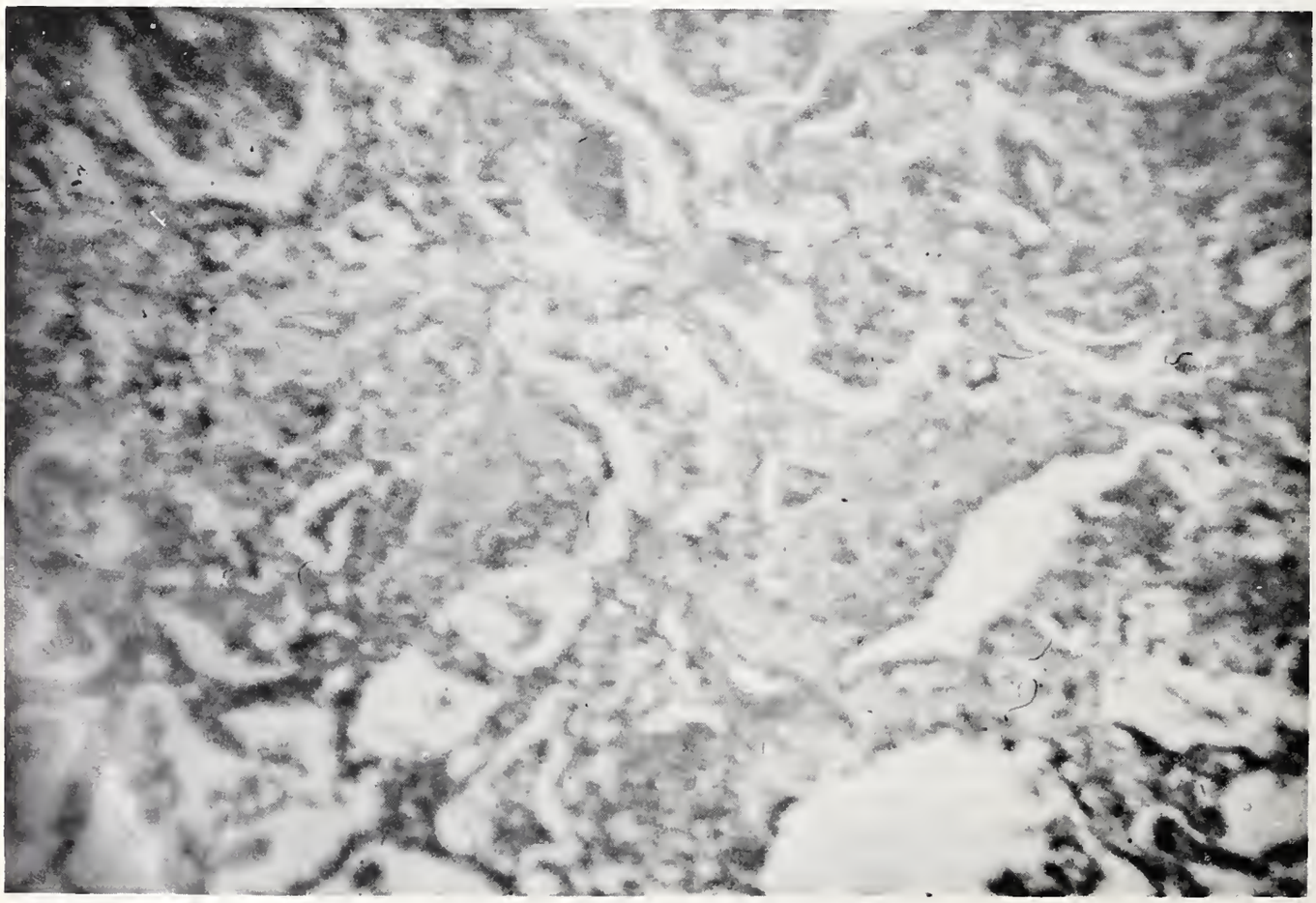
it, is certainly the first goal of resuscitation. If there is evidence of facial or pharyngeal burns, tracheostomy should be done immediately rather than after laryngeal edema develops during the ensuing 24 hours. A subclavian venous catheter, both for central venous pressure monitoring and management of intravenous fluids and medications, is most helpful. The treatment of shock, burns, and associated injuries is begun simultaneously. Steroids, antibiotics, bronchodilators, and diuretics have all been used and are generally recommended. An ophthalmology consultation is obtained when the patient has been resuscitated.

The patient is then moved to the intensive care unit where continued ventilation is carried out for the next three to four days, preferably using a volume-cycled ventilator with 50% oxygen. Close monitoring of (1) electrocardiogram, (2) arterial pressure, (3) arterial blood gases, (4) central venous pressure, and (5) hourly urine output is carried out for the first three to four days. Immediate chest x-ray and serial x-rays at 12-hour and then 24-hour intervals is recommended. The usual changes seen are pulmonary edema and interstitial infiltrative changes, which occur within 12 hours following exposure.[2]

It is extremely important to realize that laryngeal edema can occur from exposure to anhydrous ammonia for even a short time, and that this edema increases during the first 48 hours. We feel that it is therefore mandatory that early tracheostomy should be performed in all patients with any respiratory distress or even with moderate facial or pharyngeal burns. The respiratory tract epithelium will quickly regenerate and chronic problems are rarely observed, although there have been case reports of bronchiectasis following ammonia burns.[3]

Management is continued in the intensive care unit until the tracheostomy tube can be removed—usually five days

1. Microscopic section of lung at autopsy 21 days after massive anhydrous ammonia burn of respiratory tract. Note severe interstitial pneumonitis and hyaline membrane formation.



at the earliest, and occasionally up to two weeks. When the pharyngeal and laryngeal burns have healed, the tube is removed and the patient begins a progressive oral diet. Treatment of the eye burns is continued by the ophthalmologist. In contrast to permanent lung damage, permanent eye damage is fairly common and blindness has been reported.[4] We have found the use of steroids to be beneficial, but realize the controversial nature of this therapeutic modality. Recently, Dressler has shown steroids to be of much value in the treatment of experimental smoke inhalation.[5]

Finally, in the critically ill individual with increasing respiratory insufficiency due to anhydrous ammonia burn of the lungs, one must consider alternatives of management. A number of attempts at homologous lung transplantation have been made, none of which have been altogether successful. Beginning with the original lung homotransplantation in 1963,[6] little progress has been made that would justify such a risk in the patient who should have a temporary failure of oxygenation resulting from burn of the respiratory tract by anhydrous ammonia.

Short-term extracorporeal respiratory assistance using a membrane oxygenator also has been reported, and this must be considered for patients whose survival otherwise would not be possible.[7] Finally, the implantation of an artificial lung has been utilized experimentally but to date, not applied clinically.[8] At present, it would seem that the patient who is dying from the temporary effects of a respiratory burn due to anhydrous ammonia should be considered a candidate for extracorporeal oxygenation using a membrane oxygenator and a femoral vein-femoral artery bypass.

Certainly, prevention of injury is much preferable to cure, and for that reason the following rules are recommended:

1. Directions should be printed on the anhydrous ammonia tank to ensure proper use of the equipment at all times. Emergency instructions should be imprinted on the side of every anhydrous ammonia tank and on every piece of utilizing equipment.
2. All persons should be advised to wear tight-fitting, nonvented goggles or a protective mask covering the entire face when working with anhydrous ammonia.
3. All persons working around anhydrous ammonia should take the precaution of wearing long-sleeved garments and rubber gloves. This should be mandatory for anyone working with the couplings or valves of an anhydrous ammonia tank.
4. A supply of fresh water should be kept handy for washing. Federal law currently requires that at least 5 gallons of water be carried on vehicles transporting anhydrous ammonia, and this should be extended to apply also to farmers and others utilizing anhydrous ammonia tanks in their employment.

Because of the rapidly growing use of anhydrous ammonia as a fertilizer, surgeons who practice in agricultural areas can certainly expect to see an increased incidence of anhydrous ammonia accident victims. Immediate tracheostomy, subclavian venous catheterization, peripheral arterial catheterization, and management in the surgical intensive care unit is recommended.

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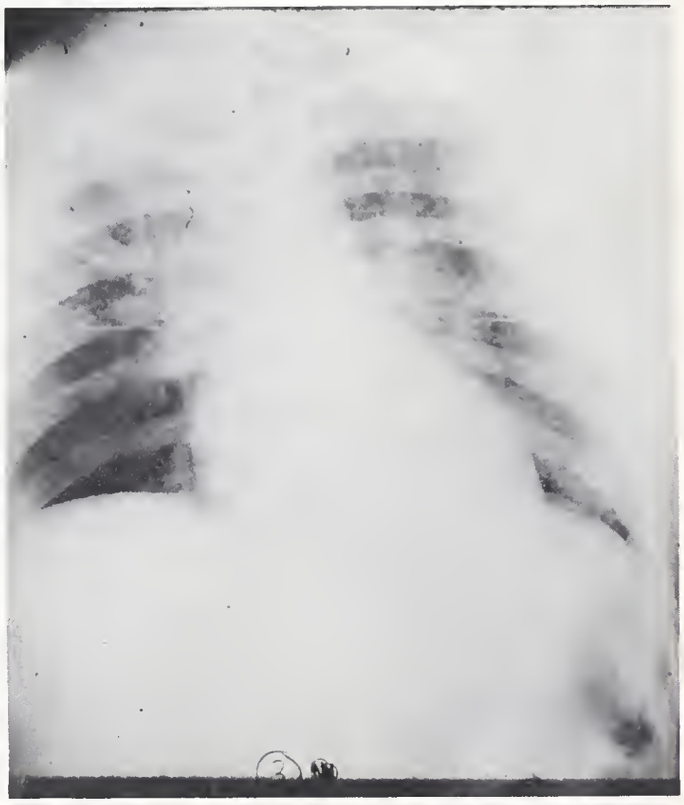
2 Chest x-ray obtained in the emergency room approximately two hours following massive exposure to anhydrous ammonia. Note pulmonary edema and interstitial pneumonitis.



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3. Thirteen days after injury, the chest x-ray has returned to normal.

Laparoscopic tubal sterilization in unselected outpatients

Mohammad H. Saidi, MD William E. Locke, MD

Sterilization of women by laparoscopy has become widely accepted throughout the world. The procedure costs much less when it is done on an outpatient rather than an inpatient basis. This article describes 214 laparoscopic tubal sterilizations done as outpatient procedures in a 200-bed general hospital. The patients had a very short hospital stay. There were no serious operative complications; no patient subsequently required emergency admission or laparotomy. No strict criteria with respect to obesity or previous surgery were applied in regard to patient selection. Average operative time was 14½ minutes and the average hospital stay, from arrival in the admitting office to dismissal, was 3½ hours.

Sterilization of women by laparoscopy has gained wide acceptance within the past several years.[1] The procedure has been adapted to an outpatient concept and is being performed throughout the world.[2] Approximately 200,000 laparoscopic sterilizations were performed in the United States in 1975.[3]

Women who have the greatest need for sterilization have had limited access to it because of several factors. Although laparoscopic sterilization provides a simple method of interval sterilization, as much as a full day of hospitalization is still required for patients undergoing the procedure. Strict criteria for patient selection, particularly in regard to obesity and previous surgery, reduce the number of tubal sterilizations that can be offered to any population.[5,6]

The purpose of this article is to report our experience in a series of 214 patients who were sterilized by laparoscopic tubal coagulation. These procedures were performed with both general endotracheal anesthesia and local anesthesia, with and without preoperative medication, and without selection in regard to previous abdominal or pelvic surgery. The safety of the procedure was of primary concern because of the combination of a very short hospital stay and an unselected patient population.

Materials and Methods

From March 1975 through October 1976, a total of 214 patients were admitted as outpatients to a 200-bed suburban general hospital for the purpose of laparoscopic tubal sterilization. Some of the patients in this study were from the private practices of the authors and some were medical indigents who were referred for sterilization by the State of Texas.*

All patients had requested a sterilization procedure. Their ages ranged from 21 to 48, gravidity ranged from 0 to 14 with an average of 4.1, and parity ranged from 0 to 10 with an average of 3.4. The patients ranged in weight from 37.7 kg (83 lb) to 138 kg (304 lb), including 26 who weighed more than 81.7 kg (180 lb), 3 more than 113.5 kg (250 lb), and 2 more than 136 kg (300 lb). Previous abdominal surgery had been performed on 61 patients or 28.5% (Fig 1).

No strict criteria were applied for accepting patients for outpatient sterilization. In every case the nature of the procedure was explained to the patient and she was given the option of having the operation performed under local or general anesthesia. History, physical examination, pregnancy test, complete blood count, Papanicolaou smear, serology, and gonorrhea culture were all accomplished prior to the procedure. The patients were instructed to report to the admitting office of the hospital one hour before the scheduled surgery, and to fast for the eight hours prior to that time.

General anesthesia was chosen by 92.5% of the patients. All patients who had general anesthesia had sodium pentothal induction and maintenance with nitrous oxide and oxygen or halothane and oxygen. All general anesthesia was administered by endotracheal intubation. Those patients who chose local anesthesia were premedicated with 50 to 75 mg of meperidine and 5 to 15 mg of diazepam administered intravenously just before surgery. The incision site was anesthetized with 1% lidocaine.

All the procedures were performed with a single-puncture Jacob-Palmer operative laparoscope manufactured by Eder Instrument Company, Inc.† Coagulation was accomplished by use of the Martin 120 unit with unipolar current. Pneumoperitoneum was created with carbon di-

*Reproductive Services, 4810 San Pedro, San Antonio, TX 78212.
†Eder Instrument Co, Inc, 5115 N Ravenswood Ave, Chicago, IL 60640.

1. Previous surgery in patients undergoing sterilization.

Procedures	Number	
Appendectomy	21	
Cesarean section	16	
Oophorectomy	3	
Salpingectomy	7	
Evisceration repair	1	
Umbilical herniorrhaphy	4	
Exploratory laparotomy	3	
Cholecystectomy	6	
Total	61	(28.5%)

2. *Previous methods of contraception in patients undergoing laparoscopic sterilization*

Contraception	Number	%
Oral contraceptives	104	49
Intrauterine device	23	11
Condom	25	12
Diaphragm	5	2
Rhythm	2	1
Foam	2	1
None	39	18
Unknown	14	6

3. *Operative failures in 214 patients undergoing laparoscopic sterilization.*

Failures	Number	%
Pneumoperitoneum failure	0	0
Inability to perform coagulation	2	0.9
Luteal phase pregnancy	2	0.9
Intrauterine pregnancy	0	0
Tubal pregnancy	1	0.5

oxide administered through a Verres needle. From 0.5 to 1.5 liters of carbon dioxide were used for pneumoperitoneum. The fallopian tubes were coagulated in two sites, one near the cornu and the other at the junction of the proximal and middle thirds of the tube. Coagulation was carried out until it could be seen to extend well into the mesosalpinx. The tubes were not divided. The infra-umbilical incision was closed with a single subcutaneous 000 chromic suture.

Patients were sent to the recovery room where pulse rate and blood pressure were recorded at 10- to 15-minutes intervals. Intravenous fluids were discontinued as soon as the patient was reactive and communicative. The patient was then kept in the sitting position until her discharge from the hospital. The patients in this study have been followed from 21 to 40 months.

Results

Of the patients who underwent laparoscopic tubal sterilization in this study, 18% were using no contraceptive at the time of the procedure (Fig 2). Two luteal phase pregnancies occurred in the group of patients. There were no intrauterine pregnancies in the group taking contraceptives at the time of the procedure and there has been one tubal pregnancy following the procedure. This pregnancy was the only surgical failure in the series. However, in two cases, tubal coagulation was not performed because of extensive pelvic adhesions. There were no failures caused by obesity and pneumoperitoneum was successfully performed in all cases (Fig 3).

Operative complications encountered in this series were minor and only one patient subsequently required hospitalization. This resulted from exacerbation of chronic pelvic inflammatory disease (Fig 4). This patient had a diagnostic dilatation and curettage and removal of an intrauterine device immediately before the laparoscopic tubal sterilization. Mild urinary tract infection developed in three patients.

There was no difference in the operative time for the local anesthesia and general anesthesia groups (Fig 5). Only 18% of the patients had preoperative medication. During convalescence at home, most patients had minor abdominal or shoulder pain which responded to mild analgesics.

Comment

Where facilities are available, we believe that any patient

who requests laparoscopic tubal sterilization can have the procedure done as an outpatient, with a very short hospital stay.[7-10] The patient's preference appears to be the only important factor in selecting either local or general anesthesia.

The lower cost of outpatient as compared to inpatient tubal sterilization should enable low- and middle-income families to avail themselves of this procedure even without third-party payment of medical bills.

Our experience attests to the safety of the procedure even in obese patients and those with previous abdominal or pelvic surgery.

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4. Postoperative complications in 214 outpatient laparoscopic sterilizations.

Complication	Number	Hospitalization
Pelvic inflammatory disease	2*	1
Bleeding		
Incisional	2	—
Vaginal	2	—
Severe abdominal pain	1	—
Lower urinary tract infection	3	—
Total	10	1

*Both with diagnostic dilatation and curettage and removal of IUD.

5. Duration of operation, anesthesia and hospital stay in patients undergoing laparoscopic sterilization.

	Average	Range
Hospital stay	3½ hr	2¼–6 hr
Local anesthesia	3¼ hr	
General anesthesia	3½ hr	
Surgery time	14½ min	5–40 min
Anesthesia time	27 min	20–42 min

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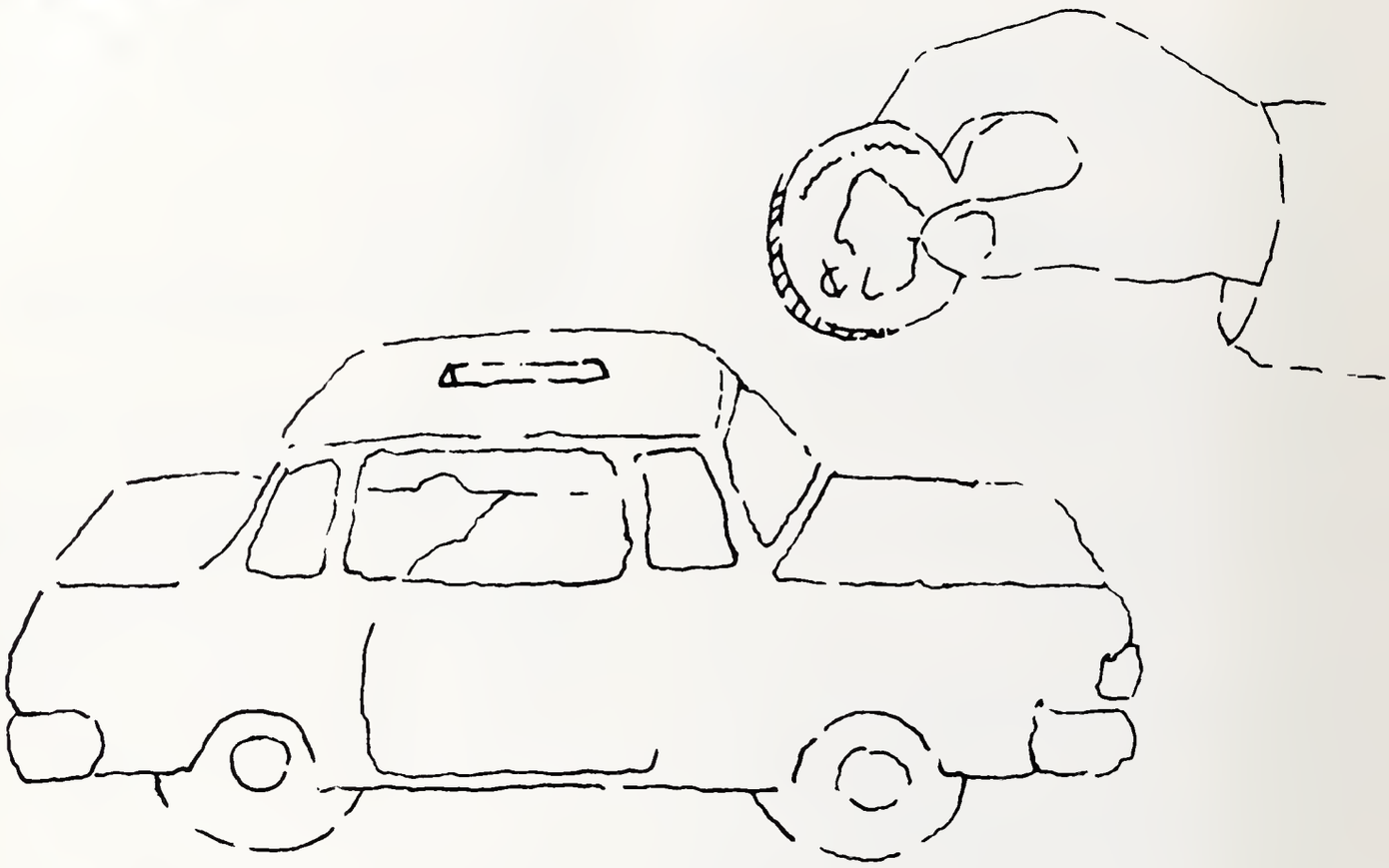

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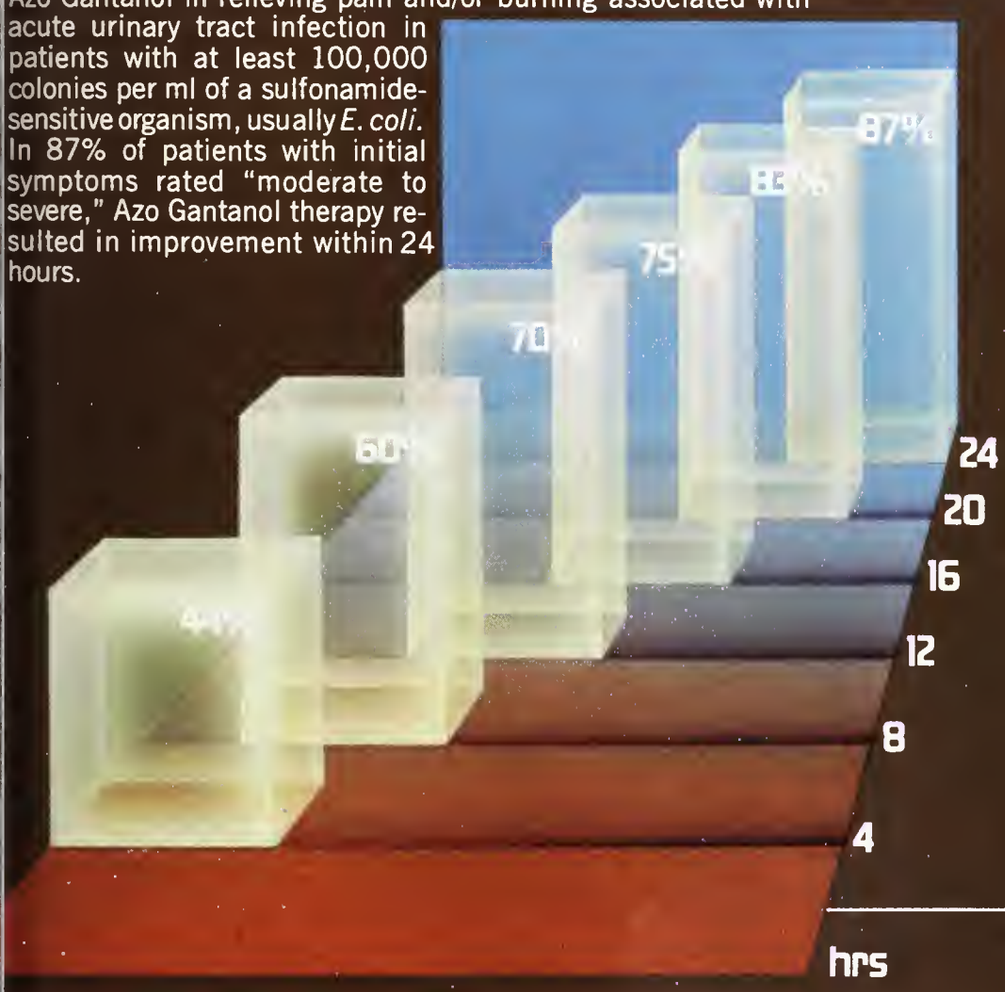

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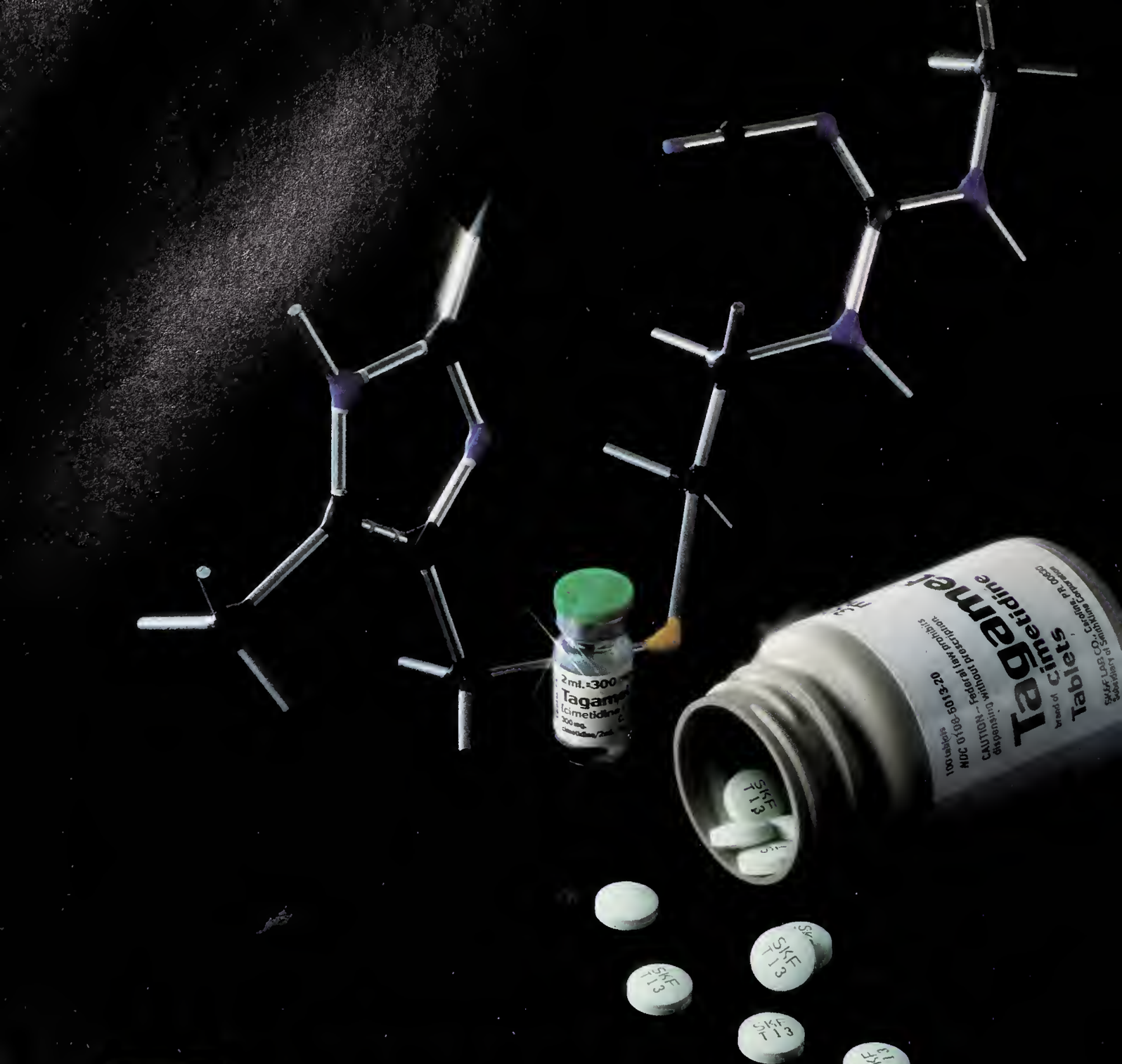

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Pregnancy complicated by acute gastric volvulus

Robert S. McCrea, MD

A patient with acute volvulus of the stomach is described, representing only the second known case of this extremely rare complication during pregnancy. The presenting symptoms, predisposing factors, diagnostic procedures, and recommended treatment of this potentially grave condition are reviewed. A high index of suspicion and clinical awareness are emphasized for early diagnosis.

Volvulus of the stomach is a rare condition in the general population: less than 300 cases have been reported. A computer search and review of the English literature revealed only one previously reported case in an obstetric patient. Savage[1] described a postpartum patient who had an acute strangulated organoaxial gastric volvulus, associated with a diaphragmatic hernia of Bochdalek, that required emergency surgical intervention. Several current texts on medical and surgical complications of pregnancy do not refer to this extremely unusual condition.[2-4] The present case is reported because of the rarity and difficulty of diagnosis of acute volvulus of the stomach in pregnancy. This case demonstrates that gastric volvulus must be included in the differential diagnosis of nausea and vomiting in pregnancy.

Case Report

A 16-year-old white primigravida had been followed in the antepartum clinic since the tenth week of gestation and had no complications. She came to the labor and delivery suite at term with a history of progressive nausea and vomiting, no radiating upper abdominal pain, and a nonproductive cough of two days' duration. She denied having trauma, chills, fever, hematemesis, melena, urinary tract symptoms, or toxin ingestion. Her history included no abdominal surgery or gastrointestinal disease.

On admission she was pale and appeared to be dehydrated; vital signs were stable. There was tenderness and dullness to percussion over the left lung base with decreased breath sounds by auscultation. The soft, nonirritable uterus measured 40 cm, and normal fetal heart tones were audible with the fetoscope. The abdomen was moderately tender, especially in the left upper quadrant, with guarding but no rebound tenderness. The cervix was dilated 1 to 2 cm with minimal effacement. The presenting vertex was unengaged and the membranes were intact.

Initial laboratory data included a leukocyte count of 24,000/cu mm with a left shift. The hemoglobin value was 12.2 gm/100 ml. Urinalysis revealed ketonuria (3+), proteinuria (1+), and no pyuria or hematuria. Liver function tests gave normal results. Serum amylase was 210 Somogyi units and the urinary amylase value was 420 units/hour. Serum electrolyte values were consistent with moderate metabolic alkalosis. A chest roentgenogram demonstrated prominent elevation of the left hemidiaphragm and clear lung fields bilaterally with no subdiaphragmatic free air. An abdominal film showed a single fetus and was otherwise unremarkable.

Hydration and electrolyte balance were attained; nausea and vomiting persisted despite antiemetic therapy. On the morning after admission, a 12 x 15 cm tense, tender mass suddenly developed in the left upper quadrant; it was definitely distinct from the uterus. Insertion of a nasogastric tube decompressed the mass and produced 2,500 ml of gastric aspirate but did not alter the nausea or vomiting. After consultation with the gastroenterology and surgical services, a course of observation, gastric rest, and general supportive care was decided on, with further studies for definitive diagnosis of the apparent gastric outlet obstruction deferred until after delivery.

A successful induction of labor with Pitocin was carried out; direct fetal monitoring gave no evidence of maternal or fetal distress. A male infant weighing 3,250 gm was delivered under saddle block anesthesia with outlet forceps. The Apgar scores were 9 and 9 at one and five minutes, respectively.

After delivery a surgical liquid diet was initiated, but persistence of nausea, vomiting, and gastric distention required reinstitution of intravenous hydration and continuous nasogastric suction. On the third postpartum day, an upper gastrointestinal series with barium contrast medium demonstrated a mesenteroaxial volvulus of the stomach and eventration of the left hemidiaphragm (Fig 1).

Exploratory laparotomy revealed torsion and distention of the stomach with no evidence of vascular compromise. The cavity formed by the eventrated diaphragm contained the splenic flexure of the colon and the torsed stomach. The gastrocolic ligament was found to be normal. After reduction of the volvulus, an anterior abdominal wall gastropexy and plication of the eventrated left hemidiaphragm were performed. There were no postoperative problems except for a small left pleural effusion that resolved after thoracentesis. The patient has had no clinical recurrence of the presenting symptoms after five months of follow-up visits.

Discussion

Laxity of the ligamentous supports of the stomach is the one factor generally agreed on as essential for the development of gastric volvulus.[5] This is frequently associated with a diaphragmatic defect,[6] as was the case in the patients described here and by Savage.[1] If the condition is considered, the diagnosis generally can be made clinically on the basis of the presenting signs and symptoms. The three criteria of Borchardt[7] are considered to be diagnostic: (1) sudden onset of severe epigastric pain and distention; (2) intractable retching without appreciable vomitus; and (3) difficulty in passing, or inability to pass, a nasogastric tube. An upper gastrointestinal series will confirm the diagnosis and define the anatomic type of volvulus as organoaxial or mesenteroaxial.[8] Fink[9] has described a characteristic angiographic appearance for gastric volvulus, although angiography is generally not needed for diagnosis.

1. Upper gastrointestinal series with nasogastric tube in place demonstrates mesenteroaxial rotation of the stomach. The antrum lies above the cardia with almost complete obstruction of the gastric outlet.

Nausea and vomiting are frequently presenting complaints during all three trimesters of pregnancy. A multitude of medical, surgical, and possibly psychogenic factors can be responsible. In cases such as the one presented, the differential diagnosis could include acute pancreatitis, acute gastritis, peptic ulcer disease, cholelithiasis, hiatal hernia, pyelonephritis, intestinal obstruction, and pneumonia. Gastric outlet obstruction was suspected in this patient because passage of the nasogastric tube relieved the left upper quadrant mass. Definitive diagnosis was delayed because it was elected to proceed with delivery prior to further exposure of the fetus to radiation.

The recommended treatment for acute gastric volvulus is immediate surgical reduction and correction of any contributing anatomic defects.[10] Torsion of any portion of the gastrointestinal tract can result in strangulation, gangrene, or perforation. The reported mortality rate for volvulus of the stomach in the general population is 25 to 50% when strangulation occurs.[11] In the obstetric patient the diagnosis is rarely suspected and can be more difficult to establish. To permit prompt diagnosis and surgical correction, the condition must be considered and included in the differential diagnosis of nausea and vomiting during pregnancy.

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PARKE-DAVIS

Primary leiomyosarcoma of the vagina: light and electron microscopic study of a case with review of literature

M. Akhtar, MD J. Ahmeduddin, MD M. Valencia, MD

A 49-year-old white woman was found to have a mass in the right lateral wall of the vagina. The mass was excised and, on light and electron microscopic examination, was found to be a well differentiated leiomyosarcoma. Vaginal leiomyosarcomas are rare tumors, with only 21 cases having been reported previously in the English literature.

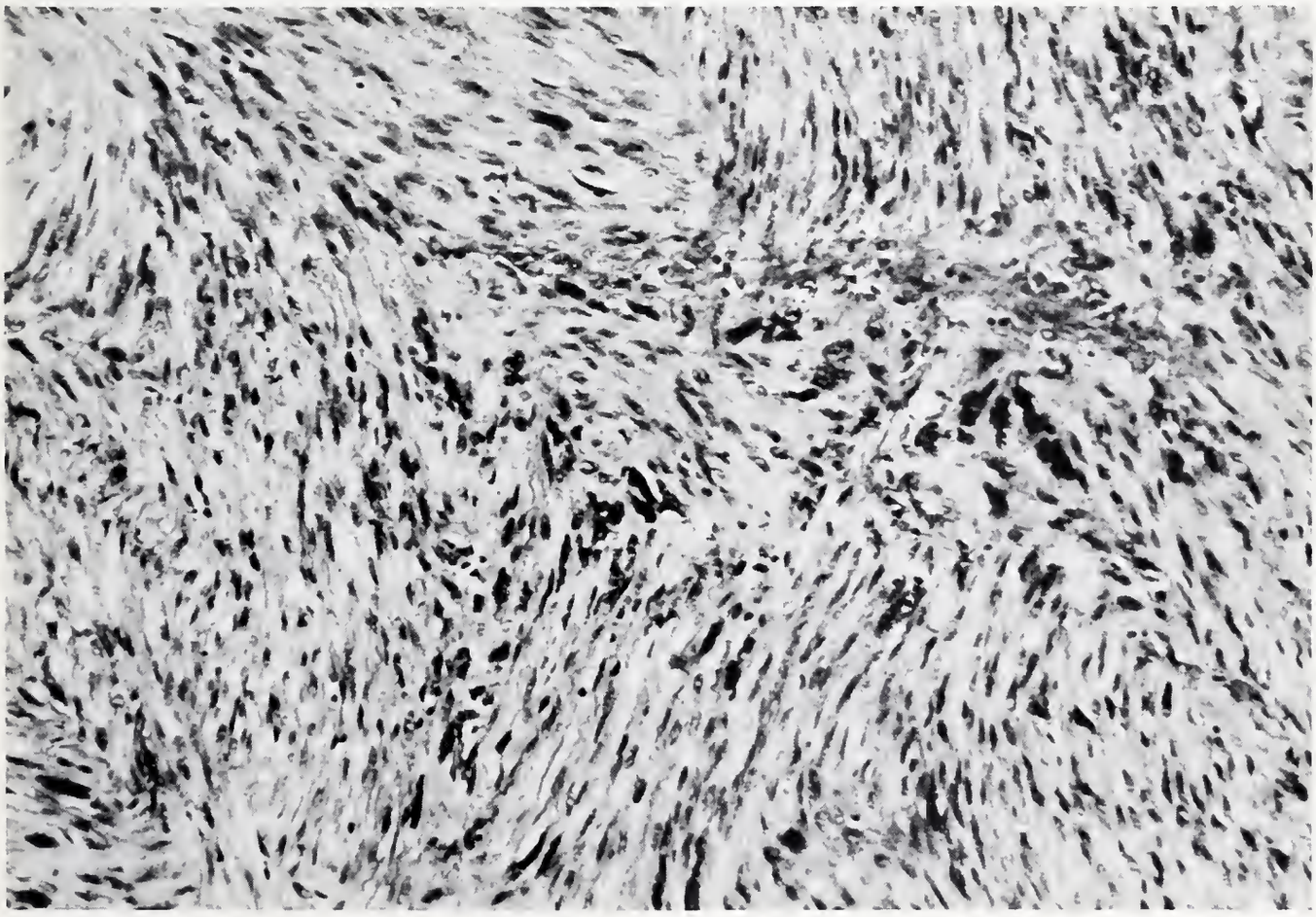
Primary malignant tumors of the vagina are infrequent and represent approximately 1% of all gynecologic malignancies. A large majority of these tumors are carcinomas, mainly of squamous cell type, with occasional adenocarcinomas. The latter are mostly seen in young girls whose mothers received diethylstilbestrol during pregnancy. Sarcomas comprise only about 2% of the malignant neoplasms of the vagina and include rhabdomyosarcoma (sarcoma botryoides), leiomyosarcoma, malignant schwannoma, müllerian stromal sarcoma, and reticulum cell sarcoma. Of these, rhabdomyosarcoma appears to be the predominant sarcoma in children, whereas leiomyosarcoma represents the most frequently encountered vaginal sarcoma in adults.[2]

To date, only 21 cases of leiomyosarcoma of the vagina have been reported in the English literature.[1-7] This article documents another case of leiomyosarcoma which was studied by light and electron microscopy.

Report of a Case

A 49-year-old white woman was seen by her gynecologist because of recent complaints of vaginal discharge and vaginal bleeding. Pelvic examination revealed a mass within the right lateral wall of the vagina. The mass bulged into the vaginal cavity and was covered by focally ulcerat-

1. An area in the tumor featuring bundles of spindle shaped cells resembling smooth muscle. Some of the nuclei are irregularly shaped and moderately hyperchromatic. Hematoxylin and eosin, X223.



ed vaginal mucosa. A local excision of the mass was done. Three weeks later an abdominal hysterectomy and salpingo-oophorectomy was performed because of uterine leiomyomata. Postoperatively, 5,000 rads were given to the right vaginal wall during a five-week period. The patient is alive and well 17 months after surgery.

Pathologic Findings

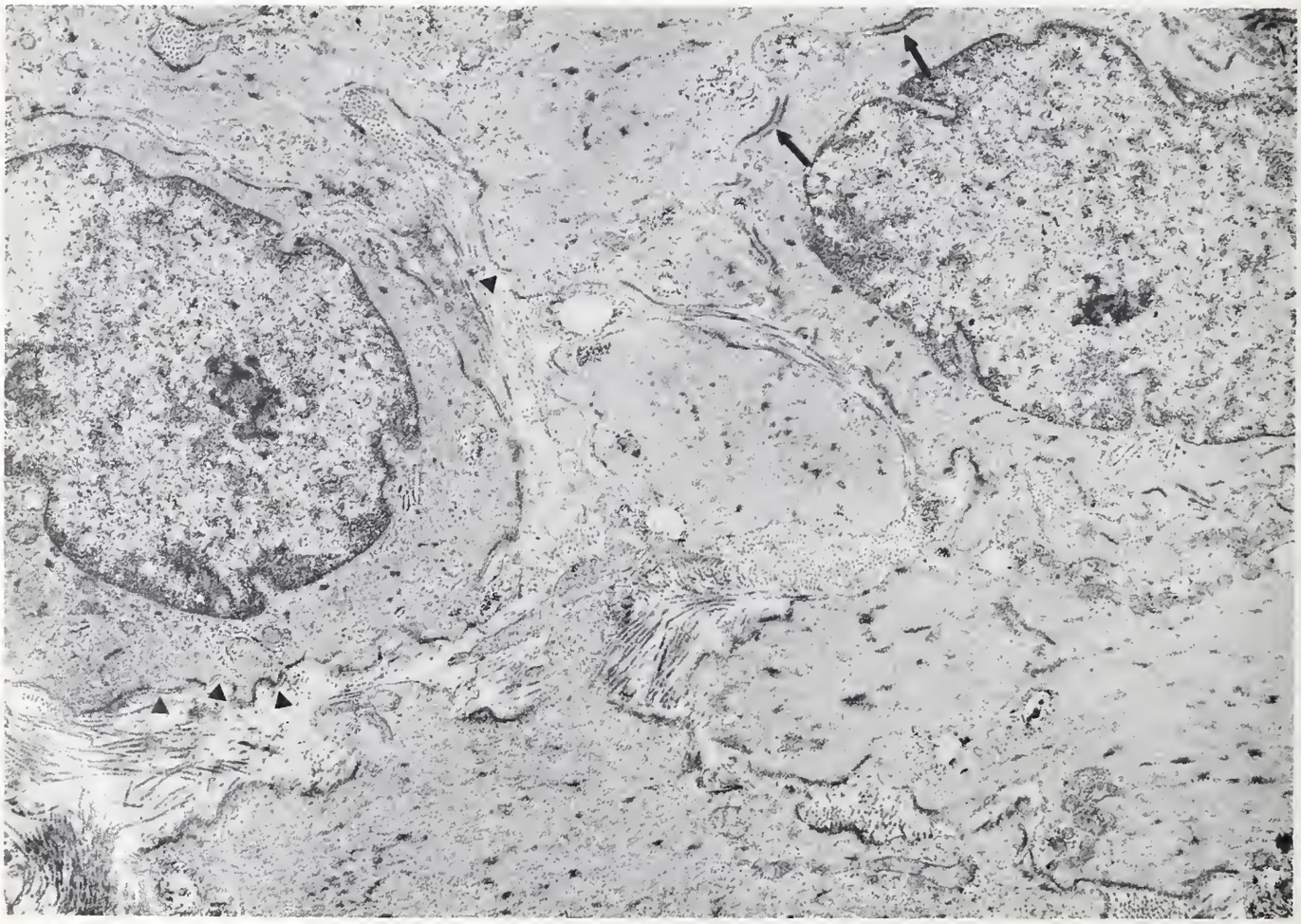
The specimen consisted of a 3-x-3-x-3.5-cm segment of the vaginal wall within which a poorly defined, somewhat lobulated, grayish-white, firm mass was noted. The mass was covered, partly, by light pink, focally ulcerated vaginal mucosa. Microscopically, the tumor was composed of interlacing bundles of spindle shaped cells resembling smooth muscle. Some of the tumor cells contained large, hyperchromatic and irregularly shaped nuclei. Several normal as well as abnormal mitotic figures were seen. Focal areas of necrosis were also present. The tumor infiltrated the surrounding smooth muscle within the vaginal wall, however, the margins of resection were free of tumor. Examination of the hysterectomy specimen only revealed partly hyalinized leiomyomata.

Electron Microscopy

Tissue for electron microscopy was fixed in 3% phosphate buffered glutaraldehyde, post fixed in osmium tetroxide, and embedded in epon. Ultrathin sections were stained with uranyl acetate and lead citrate.

The tumor was composed of closely packed, uniform cells which contained abundant, fine, longitudinally oriented cytoplasmic filaments. Several dense bodies were present within the bundles of cytoplasmic filaments (Fig 2). In some of the cells clusters of mitochondria were seen near the nuclear poles (Fig 3). The plasma membranes of

2. Electron micrograph featuring tumor cells mostly in cross sections. The cytoplasm is full of filaments with dense bodies. Basal laminae surround some parts of the cells (arrow heads). Occasional cell junctions are also noted (arrows). X9,700.



the tumor cells in some areas revealed numerous pinocytic vesicles (Fig 3). Several intercellular connections were also present. Many of the tumor cells were partly or completely surrounded by basal laminae. Within the intercellular spaces several collagen fibers were present (Fig 2).

Discussion

A review of the English literature revealed only 13 case

3. A higher magnification electron micrograph of another area in the tumor. The cell membranes show numerous pinocytic vesicles (arrows). The cytoplasm is full of fine filaments. One of the cells contains a cluster of mitochondria near the nucleus. X25,000.

4 Reported cases of vaginal leiomyosarcoma.

No.	Age	Symptoms	Location in Vagina	Treatment	Followup
Way S:					
1	86	Not mentioned	Not mentioned	Excision	Died of heart failure soon after diagnosis
2	—	Not mentioned	Posterior wall, lower third	Local excision	Died with lung metastasis 18 months later Local recurrence 2 months before death
Palmer/Biback:					
3	48	Not mentioned	Not mentioned	Transvaginal x-ray and local radium	Developed lymph node metastasis Left groin dissection done Died 9 months after diagnosis
Schram M:					
4	50	Rectal bleeding Protruding anal mass	Posterior wall	Local excision	Mass recurred 4 years later, was re-excised and treated with radium Further followup not available
Brown et al:					
5	70	Constipation, hemorrhoids, vaginal bleeding	Rectovaginal septum	Biopsy	Died 1 month later with vaginal hemorrhage and bronchopneumonia Autopsy revealed invasion of uterine wall and hepatic metastasis
Malakasian et al:					
6	54	Rectal and vaginal pain, vaginal discharge	Upper posterior wall	Enucleation, x-ray and radium	Tumor continued to grow Patient died 18 months later
7	36	Rectal pain; vaginal bleeding and discharge	Upper posterior	Enucleation, radium and x-ray	Died of intestinal obstruction secondary to tumor 41 months later
8	46	Vaginal mass	Upper posterior	Radium, x-ray	Died 38 months following diagnosis
9	37	Vaginal mass	Lower posterior	Radium, radical operation	Died of widespread metastasis 25 months later
10	52	Rectal pain	Right posterolateral, middle third	Enucleation, abdominal hysterectomy and vaginectomy	Alive and well 59 months later
11	49	Left lower quadrant pain	Upper posterior	Total vaginectomy, cobalt 60	Died of extensive metastasis 16 months later
12	38	Vaginal mass	Lower posterior	Wide excision, chemotherapy	Died with pulmonary metastasis 44 months later
13	25	Vaginal bleeding	Upper left lateral	Hysterectomy, vaginectomy, left salpingo-oophorectomy	Alive and well 10 months later
Tobon et al:					
14	43	Vaginal mass	Lower third posterior wall	Wide excision	Free of tumor 96 months later
15	49	Vaginal mass	Right vaginal wall	Wide excision	Free of tumor 6 months later
16	41	Vaginal mass	Left vaginal wall extending from left fornix to introitus	Radical vaginectomy, resection of adherent rectal wall	Free of tumor 5 months later
Davos and Abell:					
17	58	Not mentioned	Not mentioned	External radiation followed by AP exenteration and vulvectomy	Alive and well 8 years later
18	44	Not mentioned	Not mentioned	Excision	Not available
19	47	Not mentioned	Not mentioned	Excision and partial vaginectomy	Alive and well 4 years later
20	58	Not mentioned	Not mentioned	Local excision	Alive and well 2 years later
21	61	Not mentioned	Not mentioned	Vaginectomy, partial cystectomy, excision of cervical stump	Died after 15 months

reports documenting a leiomyosarcoma of the vagina.[1,3,5,6] Of these, the largest series reported by Malkasian and associates comprised eight cases.[3] In addition to these 13 case reports, brief mention of eight additional cases was encountered in the literature, thus bringing the total number of reported cases to 21.[2,4,7] A brief summary of these cases is given in Fig 4.

A review of the previously reported cases of vaginal leiomyosarcomas indicates that a majority of the patients were between 40 and 60 years of age. The youngest patient was 25 and the oldest 86 years old. Vaginal mass, vaginal bleeding, and vaginal discharge, or both bleeding and discharge, were the most frequently encountered symptoms (Fig 4).

The prognosis of vaginal leiomyosarcomas is variable. Some of the patients in the reported cases died of extensive tumor within a few months following diagnosis, while others had a tumor-free survival extending for several years. Treatment in these cases varied from incisional biopsy to pelvic exenteration, and appears to have no significant correlation with ultimate prognosis. In a series of eight cases of vaginal leiomyosarcoma, Malakasian and associates indicated that these tumors generally have a hopeless prognosis.[3] Six of the patients in their series died of tumor within 16 to 44 months following diagnosis. Two patients were free of tumor 59 and 10 months later. In a recent study of 16 vaginal sarcomas, Davos and Abell reported five cases of leiomyosarcoma.[2] Of the four patients for whom follow-up information was available, three were alive and well two, four, and eight years after surgery. One patient died of tumor 15 months after diagnosis. These authors indicated that the prognosis of vaginal leiomyosarcomas is perhaps not as dismal as was originally suggested.

Electron microscopic examination of the tumor in our case revealed uniform elongated cells, many of which were surrounded by well-formed basal laminae. The cytoplasm was full of fine filaments with several dense bodies. The plasma membranes of the tumor cells in some areas showed numerous pinocytic vesicles and several cell junctions. These features are characteristic of well differentiated cells of smooth muscle origin. Thus, electron microscopic findings in this case were compatible with the diagnosis of a cellular leiomyoma or a low-grade leiomyosarcoma.[8,9] The presence of several normal and abnormal mitotic figures, as well as areas of necrosis, however, indicated that this tumor would be best categorized as a leiomyosarcoma.

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An introductory summary of 50–75 words is required.

Text should be narrative with complete sentences, few abbreviations, and logical subheadings. For spelling and usage the editors follow "Dorland's Illustrated Medical Dictionary," 25th edition, and "Webster's Third New International Dictionary, Unabridged."

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DEATHS

D. S. Babcock

Darrow Sublett Babcock, MD, a long-time Houston physician, died March 31, 1978. Dr Babcock, 71, was a member of Harris County Medical Society.

A native of Louise, Tex, Dr Babcock was a graduate of Rice University (1927) and UT Medical Branch (1933). His internship was at Jefferson Davis Hospital, Houston.

Survivors include Dr Babcock's wife, Fern Wilkins Babcock, Houston; brother-in-law; and a number of other relatives.

R. B. Burns

Robert Brookfield Burns, MD, 77, died March 30, 1978.

A resident of Giddings, Dr Burns was a member of the Bastrop-Lee County Medical Society and past president of Lee County Medical Society. He was a native of Jonesboro, Ark, and attended Vanderbilt University. In 1925 he received his medical degree from Vanderbilt University School of Medicine. He interned at Uniontown (Pa) Hospital and St Bernard's Hospital, Jonesboro, Ark.

Dr Burns is survived by his wife, Mary Minton Burns, Giddings; daughter, Mary Knipstein, Lexington, Tex; sons, Charles M. Burns, MD, Giddings, and Robert B. Burns, Jr, Los Angeles; sister; brother; six grandchildren; and two great-grandchildren.

J. R. Callan

John Redmond Callan, MD, 72, San Antonio, died May 13, 1978.

Dr Callan was born in Brady, Tex, and attended Rockhurst College in Kansas City, Mo. In 1932 he received his medical degree from St Louis University School of Medicine. He interned at St Joseph's Hospital, Kansas City, Mo. He was a long-time member of Bexar County Medical Society.

Survivors include his wife, Marie Fowler Callan, San Antonio; aunt, Mrs Leake Walker, Houston; and a number of cousins.

L. C. Carter

Louian Clarkson Carter, MD, 73, a long-time Port Arthur resident, died May 22, 1978.

Dr Carter was chairman of the board and president of the medical staff at St Mary Hospital of Port Arthur, and also served as president of the Jefferson County Medical Society, the Texas Club of Internists, and the Jefferson County Chapter of the American Heart Association.

A native of Marlin, Tex, Dr Carter was a graduate of Rice University and UT Medical Branch. His internship was at Bellevue Hospital, New York.

Survivors include his wife, Laura Lee Hampshire Carter, Port Arthur; daughter, Laura Carter Higley, Houston; and one grandson.

P. L. Crayton

Philip Lawrence Crayton, MD, Marshall, died April 21, 1978. Dr Crayton, 57, was a past president of Harrison County Medical society.

A native of De Berry, Tex, he was a graduate of Baylor University, Waco, and Baylor University College of Medicine. He interned at Baylor University Medical Center, Dallas. Before moving to Marshall, he practiced medicine and surgery in Linden, Tex.

Survivors include his wife, Mary Virginia Britton Crayton, Marshall; sons, Philip L. Crayton, Jr, Carrollton, Tex; Dr Steven C. Crayton, Dallas; and John Alan Crayton, Marshall; two grandsons; and two aunts.

R. J. Harding

Robert Joseph Harding, MD, 49, died May 15, 1978. A member of Tarrant County Medical Society, he had been a general practitioner in Fort Worth for 20 years.

Dr Harding was a native of Racine, Wis. He was a graduate of Texas Christian University, Fort Worth, and UT Southwestern Medical School, Dallas. He completed his internship and pathology residency at Harris Hospital, Fort Worth, and a surgical residency at the Veterans Administration Hospital, Dallas.

Surviving Dr Harding are his wife, Jo Carole Jones Harding; daughters, Michelle Renee Harding, Lori Dawn Harding, and Leslie Colleen Harding; and mother, Mrs Laurel Harding, all of Fort Worth.

C. P. Hawkins

Charles Pearre Hawkins, MD, 83, a past president and honorary member of Tarrant County Medical Society, died May 18, 1978. The Fort Worth physician received the Gold-Headed Cane Award from the Tarrant County Medical Society in 1959. After his retirement in 1964, he moved to Mena, Ark.

Dr Hawkins was born in Waco, was graduated from Vanderbilt University in 1914, and received his medical degree from UT Medical Branch in 1919. His internship was at

Kansas City (Mo) General Hospital and Medical Center. He served five years in the US Navy during World War II.

Survivors include his wife, Emma Lou Scott Hawkins, Mena, Ark; daughters, Mrs Jack Garza Howe, Waxahachie, and Mrs Edwin Carruth, Fort Worth; seven grandchildren; and two great-grandchildren.

C. H. Hooper

Charles Henry Hooper, MD, 56, San Antonio, died May 22, 1978. He was past president of Bexar County Medical Society.

A native of Archer City, Tex, Dr Hooper was a 1943 graduate of North Texas State University, Denton, and a 1945 graduate of Baylor University College of Medicine. His internship was at Grace Hospital, Detroit. He served in the US Army during 1946–1948.

Surviving Dr Hooper are his wife, Eloise Parks Hooper, San Antonio; sons, Michael Hooper, Tyler; Daniel Hooper, Phoenix, Ariz; Stephen Hooper, Denver, Colo; daughter, Judith Hooper, San Antonio; brother; mother; and three grandchildren.

C. A. Voelker

Chris Arthur Voelker, MD, a member of the Wharton-Jackson-Matagorda-Fort Bend County Medical Society, died March 23, 1978.

Dr Voelker, 62, had been chief of radiology at Matagorda General Hospital, Bay City, since 1958. He was born in Dubuque, Iowa, and attended Loras College there. In 1940 he received his medical degree from the University of Iowa (Iowa City) College of Medicine. He served an internship at University of Iowa Hospital, Iowa City, and took a residency in radiology at the University of Iowa. He served as a radiologist for three years with the Air Force Medical Corps at Eglin Air Force Base, Fla, before moving to Bay City.

Dr Voelker is survived by his wife, Helen Deming Voelker, Bay City; and his mother and two brothers, Dubuque, Iowa.

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Giddings, 1900–1978

J. R. CALLAN
San Antonio, 1906–1978

L. C. CARTER
Port Arthur, 1904–1978

P. L. CRAYTON
Marshall, 1921–1978

R. J. HARDING
Fort Worth, 1928–1978

C. P. HAWKINS
Fort Worth, 1894–1978

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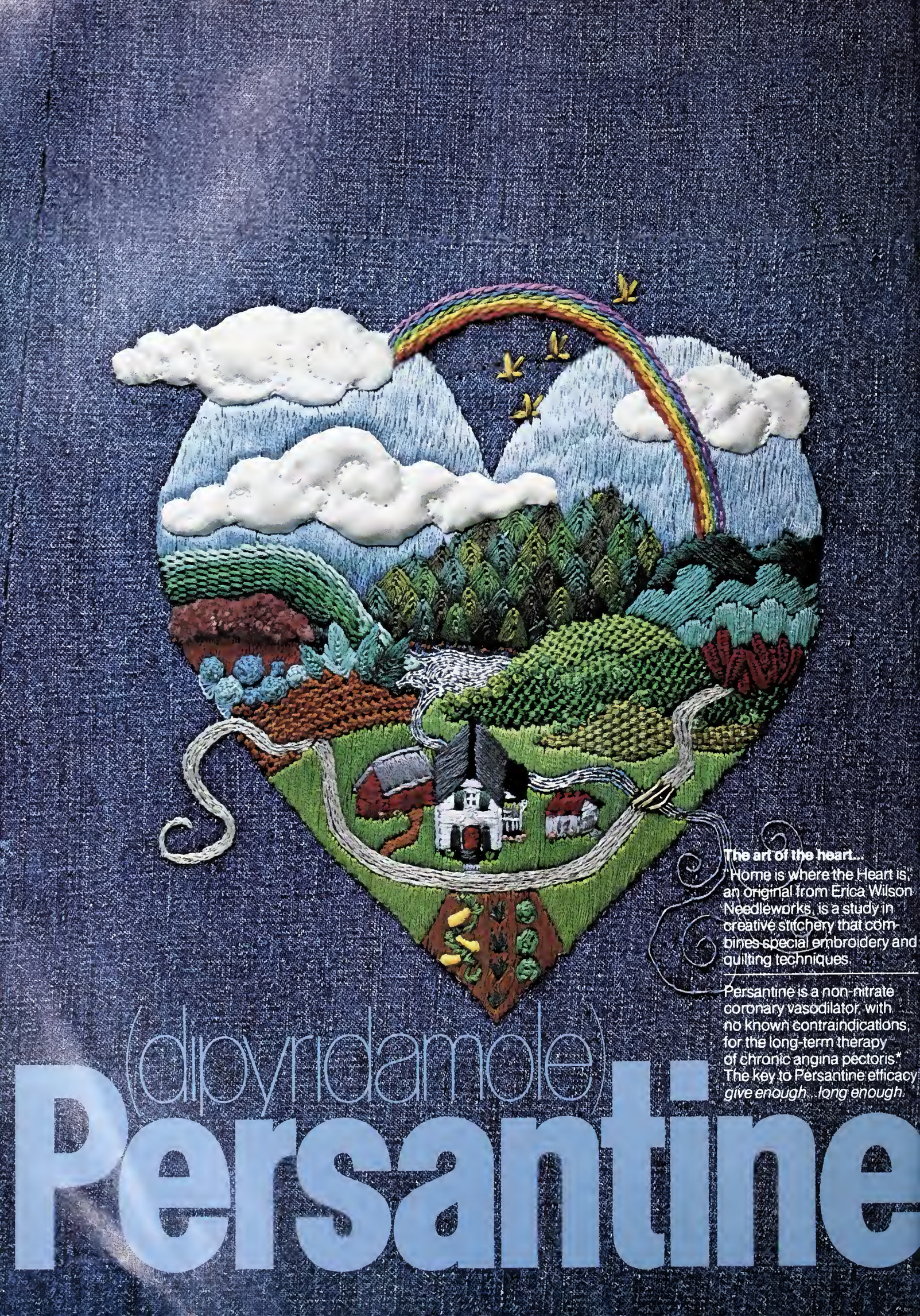
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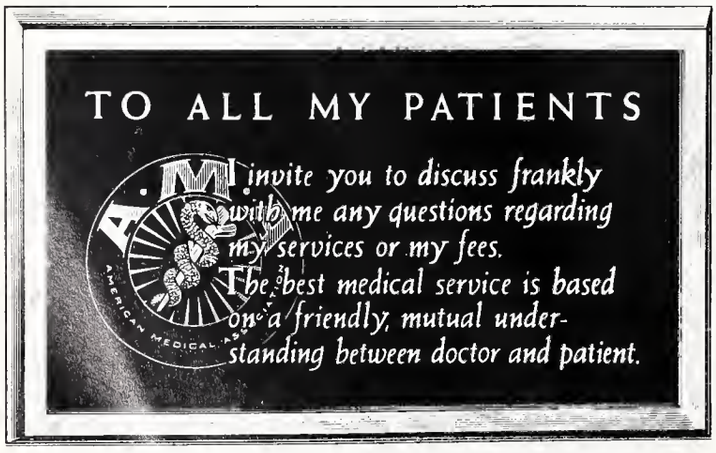

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WARNINGS: Because of the potential hazard of nephrotoxicity and ototoxicity, prolonged use or use of large amounts of this product should be avoided in the treatment of skin infections following extensive burns, trophic ulceration, and other conditions where absorption of neomycin is possible.

Usage in Pregnancy: Although topical steroids have not been reported to have an adverse effect on the fetus, the safety of topical steroids during pregnancy has not been absolutely established therefore, do not use extensively on pregnant patients, in large amounts, or for prolonged periods.

PRECAUTIONS: Watch constantly for overgrowth of nonsusceptible organisms (including fungi other than candida). Should superinfection due to nonsusceptible organisms occur, administer suitable concomitant antimicrobial therapy; if favorable response is not prompt, discontinue the preparation until adequate control by other antiinfectives is effected. If extensive areas are treated or if the occlusive technique is used, the possibility exists of increased systemic absorption of the corticosteroid; suitable precautions should be taken. If irritation develops, discontinue the product and institute appropriate therapy.

ADVERSE REACTIONS: Sensitivity reactions to topical use of gramicidin are rare. Hypersensitivity to nystatin is extremely uncommon. Hypersensitivity to neomycin has been reported and articles in the current medical literature indicate an increase in its prevalence.

The following local adverse reactions have been reported with topical corticosteroids either with or without occlusive dressings: burning sensations, itching, irritation, dryness, folliculitis, secondary infection, skin atrophy, striae, miliaria, hypertrichosis, acneform eruptions, maceration of the skin, and hypopigmentation. Contact sensitivity to a particular dressing material or adhesive may occur occasionally. Ototoxicity and nephrotoxicity have been reported.

For full prescribing information, consult package insert.

HOW SUPPLIED: Available in 15, 30, and 60 g. tubes. It is also available in jars of 120 g. (4 oz.) for hospital or institutional use only.

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Physicians Wanted

WANTED ORTHOPEDIC SURGEON TO JOIN multispecialty clinic with facilities for doing all types of surgery in new hospital as well as office in new clinic building. Taylor Smith, MD, Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED ONE OR TWO BOARD ELIGIBLE FAMILY PRACTITIONERS to come into a growing multispecialty clinic. Many benefits that only a group practice can provide. Taylor Smith, MD, Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED BOARD ELIGIBLE OB-GYNECOLOGIST to join two others in the department with all new facilities in hospital and clinic. Taylor Smith, MD, Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: ANESTHESIOLOGIST to join growing multispecialty clinic with excellent facilities. New clinic building adjacent to new hospital. Contact Taylor Smith, MD, Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: OPHTHALMOLOGIST TO JOIN growing multispecialty clinic with excellent facilities. New clinic building adjacent to new hospital. Contact Taylor Smith, MD, Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

WANTED: INTERNIST, preferably with subspecialties in gastroenterology, pulmonary diseases, rheumatology or cardiology to join growing multispecialty clinic. Excellent facilities in new clinic building adjacent to new hospital. Contact Taylor Smith, MD, Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

PHYSICIAN AND PSYCHIATRISTS—general practice, pediatricians and psychiatrists for vacancies in state mental hospitals and state schools for mentally retarded. Salaries: $31,000 to $38,000 plus $1,000 for board certification plus up to $3,000 supplement in certain areas; usual State benefits. Liability protection provided under Texas law. Texas license or reciprocity required. Contact the Personnel Specialist, Texas Department of MHMR, P.O. Box 12668, Capitol Station, Austin, Texas 78711. 512-454-3761. An equal opportunity, affirmative action employer.

NEAR GULF COAST: Several specialties including family practice. Two accredited district hospitals, 1968 additions. Excellent potential to double present staff of 20. Offices available. Great rural place to raise family. Water recreation, hunting. 75 miles west of Houston. Steve Walters, Administrator, Box 910, Bay City, Texas 77414, 713-245-6383.

WANTED: PEDIATRICIAN to join growing multispecialty clinic with excellent facilities. New clinic building adjacent to new hospital. Many benefits that only a group practice can provide. Contact Taylor Smith, MD, Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

EMERGENCY DEPARTMENT GROUP, HOUSTON AREA, EXPANDING—choice of salary or fee-for-service with guarantee—malpractice paid—Call 713-861-7942 or write Greater Houston Emergency Physicians Association, 625 West 19th, Houston, Texas 77008.

GENERAL PRACTITIONER NEEDED: To work with general surgeon doing GP work. Excellent opportunity for a doctor desiring family practice work. May start with salary of $45,000 per year negotiable. City has population of 9,000 with trade area of 25,000 to 30,000. Contact Chris S. Cruzcosa, MD, 300 S. 5th Street, Carrizo Springs, Texas 78834, 512-876-5236.

TEXAS NORTHEAST: Emergency physicians. Immediate openings available in established ACEP oriented group. Positions in several communities available. Prefer career-oriented emergency MDs. Additional training and/or experience required. Flexible schedule, fee-for-service with guarantee and usual fringes including malpractice insurance. Write: Emergency Medicine Consultants, 3600 Gaston Avenue, Dallas, Texas 75246, or call 214-823-6850.

EMERGENCY DEPARTMENT DIRECTOR WANTED—Longview, Texas, population 60,000. Two hour drive east of Dallas. Progressive community with beautiful wooded geography and nearby lakes. Need career ACEP MD with ER and administrative experience. Malpractice insurance supplied. Fee for service compensation $72,000 for 20 shifts/month. EHSA, 3600 Gaston, Se. 503, Dallas, Texas 75246; 214-823-6850.

UNUSUAL PRIVATE PRACTICE OPPORTUNITIES NOW AVAILABLE in general practice. Opportunities available in a 158-bed proprietary hospital, physician owned and operated. Medical success in your practice guaranteed by cash of $6,500 per month for a period of six months. Free rent and other benefits also included. Pasadena, Texas, is a progressive city of 150,000 located as a suburb of Houston, Texas, near the Johnson Space Center. Community enjoys high per capita earnings, open staff policies, and unlimited medical opportunities. Applications will be restricted to aggressive and American-trained physicians only. For additional information, write or call Richard Fly, Administrator, Pasadena General Hospital, 1004 Seymour, Pasadena, Texas 77506. Phone 713-473-1771.

BIG SPRING—PHYCHIATRIST, board certified or eligible. Salary $38,000 to $42,800. Texas license required. Building a better and more dynamic program in state hospital. Ideal family living town of 30,000, good schools, recreation, mild West Texas weather. Call or write Doug Cheney, Personnel Director, Big Spring State Hospital, P. O. Box 231, Big Spring, Texas 79720; 915-267-8216. An equal opportunity/affirmative action employer.

PHYSICIAN WANTED FOR BUSY CENTRAL TEXAS general practice—Opportunity for association. Clinic adjacent to hospital. Charter member of American Academy of Family Practice. Could use FP or internist willing to do general practice. Good income. Close to Houston, Austin, San Antonio. Contact Willis G. Youens, Jr., MD, 105 N. Grohmann, Weimar, Texas 78962; 713-725-8545.

PHYSICIANS: You can find the perfect practice opportunity through Medenco Hospitals, Inc. A variety of settings from rural to metropolitan plus an attractive financial package are available with Medenco. Contact Physician Relations, Medenco Hospitals, Inc., P. O. Box 3448, Houston, Texas 77001; Call collect in Texas 713-621-8131.

NEEDED SEMIRETIRED PHYSICIANS to work on board Mobile Vans for health card screening in Houston; no night duties. Please call Jamil T. Azzam, MD, at 713-444-8906 and after 7 p.m. at 713-273-1017.

EXPANDING MEDICAL CLINIC has opportunities for internal medicine, family practice, pediatrics. Apply: Desmond McCann, MD, El Paso Medical Clinic, 2616 North Oregon, El Paso, Texas 79902. Phone 915-532-5232.

HEMATOLOGIST/ONCOLOGIST: Board certified or eligible to join expanding successful group. Busy hospital and office practice. Houston environs. Excellent salary and fringe benefits. Please reply to Ad-813, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

CARDIOLOGIST-NON INVASIVE: Board certified or eligible to join expanding successful group. Busy hospital and office practice. Houston environs. Excellent salary and fringe benefits. Please reply to Ad-814, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

GP/FP NEEDED FOR BUSY PRACTICE. No OB, no surgery. One full time partner, one half time partner. Fast growing city, beautiful climate, on the border. Salaried the first year, partnership afterwards. Practice grosses over $200,000. Write M. Popek, MD, 520 South 15, McAllen, Texas 78501.

INTERNIST NEEDED—Certified or board qualified internist to do general internal medicine with eleven members of steadily growing, multispecialty practice. Clinic adjoins new, 77 bed, Hill Burton JCACH with recently expanded CCU/ICU to 8 units. Excellent climate, good fishing and hunting, new golf course and skeet range and close to metropolitan areas of Texas. Suggest salary at first with rapid advancement to director/owner in fully incorporated medical association. Send curriculum vitae. Please contact Van D. Goodall, MD, Clifton Medical and Surgical Clinic Association, Clifton, Texas 76634. Telephone 817-675-8621 or home phone 675-3113.

TEXAS PHYSICIANS PLACEMENT. Private fee-for-service practices in many fields with excellent financial backing. We feel as responsible to the physician candidate for placement where he and his family will be happy as we do our client, although our fee is paid by our client. We are a search firm looking for quality, not quantity. Let us help you. Texas openings only. Please send CV with professional and lifestyle preferences to Sanford Smith, Professional Practice Management, Inc., 1102 Kingwood Drive, Humble, Texas 77339.

SEEKING BOARD CERTIFIED GENERAL SURGEON. 30,000 community, 12-man clinic. Texas. Salary negotiable. Reply to Ad-841, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

TEXAS, SAN ANTONIO BASED EMERGENCY PHYSICIAN group expanding. Immediate openings for career oriented emergency physician in several communities. Will consider part-time, flexible schedule. Call or write: Emergency Physicians Associates, 730 North Main, Suite 624, San Antonio, Texas 78205. 512-222-0746 or 224-9067.

PSYCHIATRIST II. Three positions available (one Unit Director, two staff psychiatrists). Licensed to practice in Texas. $38,000-41,000 depending on qualifications, plus $1000/year for board certification. Please submit resume including at least three references to: LaDair Wright, Personnel Director, Austin State Hospital, 4110 Guadalupe, Austin, Texas 78751.

OBSTETRICIAN-GYNECOLOGIST NEEDED FOR GROWING COMMUNITY. Practice in state with excellent climate year round, lots of friendly people, great business opportunities for ambitious physician. For more information, send a resume or letter to Atilano Diaz, MD, 2300 West Michigan, Suite 1, Midland, Texas 79701, or call collect 915-683-5568.

STUDENT HEALTH PHYSICIAN—ONE PHYSICIAN needed to help provide primary medical care for student population of 22,000; stimulating environment, medical school ambulatory clinic; salary above $32,000; if qualified, position includes clinic appointment in medical school. Eight hour day, 5 day week. Call or write Reagan J. Gibbs, MD, Texas Tech University School of Medicine, Lubbock, Texas 79430; telephone 806-743-2848.

YOUNG GP WANTED. Golden opportunity. 15 minutes from Dallas, Texas. Collin County; town of 8,000. One physician part time, needs full time help. Terms percentage of gross. Contact R. Emanuel, MD, 214-692-5829.

EXPERIENCED PRIMARY CARE EMERGENCY PHYSICIANS—Excellent locations; ACEP oriented group. Guaranteed income; full fringes; post graduate education a must. Directorships—staff positions available immediately. Contact: MEDSECO, Emergency Medicine Division, 12605 East Freeway, Suite 608, Houston, Texas 77015; 713-451-2222 or send resume. You will receive immediate response with details.

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FAMILY PRACTITIONER IN SMALL city, south central Texas, San Antonio, Austin area. Drawing area approximately 30,000. 50-bed new hospital under construction. Contact William B. Watts, Administrator, Gonzales County Hospital District, Gonzales, Texas 78629. Phone 512-672-2811.

URGENT CARE—Austin, Texas. Well trained, courteous full time physician for exciting urgent care practice in non hospital clinic. Hourly salary, malpractice paid. Beautiful Austin, multiple educational, recreational, and cultural opportunities. Dennis Ela, MD, Minor Emergency Center, 2118 West Anderson Lane, Austin, Texas 78757; 512-459-4367.

EXPANDING GROUP NEEDS SPECIALISTS in cardiology, obstetrics, pediatrics, family practice, neurology and radiology. Enjoy practicing medicine with our 28-man multispecialty group located in a friendly city of 100,000 people in north central Texas. Close to everything, but away from big city problems. If you want to know more about this long established group (1919) whose city has a booming economy, call collect Dr. David M. Pogue at 817-766-3551. Wichita Falls Clinic, 501 Midwestern Parkway, Wichita Falls, Texas 76302.

EMERGENCY PHYSICIANS NEEDED by progressive, expanding group. Attractive salaries, flexible scheduling, malpractice provided. Positions available throughout Texas as well as other areas of the sunbelt. For additional information contact Emergency Medicine Physicians Associated, P.O. Box 36443, Dallas, Texas 75235 or call collect 214-350-4991.

THORACIC AND VASCULAR SURGEON NEEDED. A unique opportunity exists for a board certified or eligible surgeon to complete the spectrum of medical care in excellent West Texas community of 82,000. All other specialties represented including cardiology and pulmonary medicine. New 200 bed hospital with experienced angiographers. Please reply to Ad-836, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

TEXAS: DALLAS-FT. WORTH. Primary care physicians needed for established group expansion. Excellent opportunity, guaranteed income, full fringes. Candidates must be career-oriented MDs, with experience in critical care. Call or send resume: MEDSECO, Emergency Medicine Division, 12605 East Freeway, Suite 608, Houston, Texas 77015; or call 1-800-231-7888 Texas or Canada 713-451-2222.

INDUSTRIAL MEDICINE/FAMILY PHYSICIAN with training in trauma to associate with an eight doctor multispecialty group. Straight salary or salary plus participation with early partnership. Many fringe benefits. Curriculum vitae, references with reply. Contact V. Goodman, Administrator, or B. A. Lawrence, MD, 7630 Bellfort, Houston, Texas 77061. Telephone 713-644-3344.

FAMILY PRACTITIONERS WANTED: Investment opportunity for two or three family practitioners. Take over new medical building with eight examining rooms, lab and x-ray. Excellent practice area in Houston. Contact Ad-842, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

PREVENTIVE MEDICINE. Do stress conditioning and set up exercise and diet programs tailored to executive needs. Prime Houston location. We have other openings in family practice, orthopedics, OB-GYN, internal medicine and research. Contact Marilyn Blaker, MEDEX, 5805 Richmond, Houston, Texas 77057, call collect 713-789-1550.

PHYSICIANS WANTED—progressive hospital in East Texas. Contact Paul Bennett, Administrator, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647. Telephone 214-845-2281.

A PHYSICIAN WITH TEXAS LICENSE is wanted to practice general medicine at the NTSU Student Health Center. Forty hour week Monday-Friday with minimal call duty. Salary is negotiable. Good fringe benefits. Please contact Sheila Meyer, Administrative Officer of the NTSU Student Health Center, P.O. Box 5158, Denton, Texas 76203. Telephone 817-788-2331. We are an equal opportunity/affirmative action employer.

WANTED: FAMILY PRACTICE PHYSICIAN for small community in Central Texas, 30 bed hospital. Guaranteed income and free clinic space for the first year. Nurse and office assistant for six months. Total community support, excellent schools and churches, lower cost of living, excellent recreational areas. Quality of life simple and easy. Contact: Administrator, Hubbard Hospital, P.O. Box 308, Hubbard, Texas 76648.

INTERNIST WITH SUB-SPECIALTIES IN CHEST DISEASES, infectious diseases and rheumatology needed for Fort Worth multi-specialty group. Competitive salary plus excellent fringe benefits or percentage of gross arrangement, if preferred. Excellent hours. Early partnership status. Contact Henry V. Birdwell, Jr., MD, or Bryan Charles at 817-338-4747, 1200 Summit Avenue, Fort Worth, Texas 76102.

MEDINA COUNTY AND HONDO, TEXAS. An excellent opportunity for a young physician to establish a practice. The local physicians will make you an outstanding offer. Contact: John W. Meyer, MD, Medina Medical Management Corporation, 602 31st Street, Hondo, Texas 78861; telephone 512-426-3054.

PHYSICIAN: We are one of America's largest health care corporations. Currently we are seeking a back-up physician for our plasma donor center located in Houston. Responsibilities will include performing physicals in conjunction with donor screening and evaluations when our regular staff physicians are on vacation. Our requirements are flexible and we will consider retired physicians as well as those desiring to work on a consulting basis. We offer excellent working environment and a highly competitive salary. Please contact Tom McCutchen, United Biologics Corporation, Division of Abbott Laboratories, 1520 Capital, Houston, Texas 77002; 713-225-9177. Equal opportunity employer M/F.

Situations Wanted

PATHOLOGIST, 34, well trained, AP & CP board certified, fellow. Seek relocation anywhere, available now. Call 414-421-7841 or write Ad-824, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

SURGEON, Texas licensed, desires to join group in southwest part of state. Contact by mail or phone 509-326-5338. Available Aug. 31, 1978. Sergio F. Grossling, MD, W202 Rainier Way, Spokane, Washington.

LOCUM AVAILABLE for one or two weeks, anytime. Prefer Houston or suburbs. Well trained FAAFP with twenty years experience able to take over and operate your busy family practice while you holiday. Please write for CV and advise which dates you would like to be away. Please reply to Ad-818, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

ANESTHESIOLOGIST, 36 years old, FMG, FLEX, board eligible (passed part 1). 1½ years in private practice, seeks relocation. Reply with full particulars of location, type of practice, compensation and benefits. University trained. Please reply to Ad-794, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

GASTROENTEROLOGIST—Internist, ABIM, 28, seeks practice situation with multispecialty group or other gastroenterologists. Medical school affiliation desirable but not necessary. University trained in all endoscopic procedures. Available July 1979. Please reply to Ad-819, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

RELOCATE IN TEXAS: Canadian trained MD, FRCS(C). US board eligible in general surgery. Currently practicing in general surgery and vascular surgery in Canada. Wishes to relocate in Texas. Medium or small size city, solo or group practice or full time job. Please reply to Choong K. You, MD, 928 Bellevue Avenue, Halifax, Nova Scotia, Canada.

BOARD ELIGIBLE GENERAL AND VASCULAR SURGEON from University of Mass. Medical School Residency Program is seeking group or hospital based practice. Please write to: Vijay A. Mehta, MD, 14 D Brandywine, Shrewsbury, MA 01545; phone 617-791-4621.

GENERAL PERIPHERAL VASCULAR SURGEON, 30, board certified, vascular fellowship, extensive peripheral vascular experience. Solo, group, partnership or hospital based. Please reply to Ad-803, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTICE: FMG, university trained, board eligible. Desires position in a clinic or group practice in Houston, suburban. Please reply to Ad-825, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

TWO BOARD CERTIFIED PEDIATRICIANS (husband and wife) are looking for a full time and a part time position in Houston or close to it. Please contact Jalil Zarrabi, MD, 4839 McDermed, Houston, Texas 77035.

BOARD QUALIFIED ANESTHESIOLOGIST, well-trained in all kinds of anesthesia; in practice for six years; presently doing all types of surgery including open-heart. Wants to relocate in Texas; already carrying Texas license. Available anytime. Please reply to Ad-827, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

UROLOGIST, 41, married, board certified, FACS, 9 years experience private practice. Wishes to relocate in Texas. Prefer solo; will consider partnership or group. Texas license. Please contact Ad-832, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

DERMATOLOGIST—37, dermatology board certified 1971. Texas temporary license. Looking for practice in Houston. Open to all possibilities. Please reply to Ad-831, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD ELIGIBLE INTERNIST, looking for possible opportunities as solo, group or hospital based practice in state of Texas. Available at any time. Have Texas license. Please write Ad-829, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701; or contact by phone 216-473-0728.

INTERNIST-CARDIOLOGIST, 35, FMG, fully USA trained. ABIM eligible. Expertise: echo, stress testing and all aspects of clinical cardiology and internal medicine. Knowledge of Spanish. Available on short notice. Write Ad-830, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

PHYSICIAN ASSISTANTS can help save you (and your patients) time, money, increase patient rapport and compliance, and give you more time to do what you want to do. August 1978 graduates of AMA approved Bowman Gray Physician Assistant Program, North Carolina, seeking employment in Texas. Couple available to work together or apart. Please reply to Ad-835, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD ELIGIBLE ANESTHESIOLOGIST with over 10 years extensive experience of all types of anesthesia, looking for position for private practice, preferably fee for service, but will consider all offers and locations. Contact Ad-805, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTICE: 32, completing residency from UTMB, November 1978. Desire salaried position in associateship or group practice in Austin or surrounding area. CV and references on request. Please reply to Ad-837, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

NEPHROLOGIST: Wishes to return to Texas. Education and training SFA Nacogdoches, UT Dallas, UCLA, UT Southwestern. ABIM 1972. AB nephrology 1974. Presently private practice IM and nephrology in Northeast. Director renal transplant, tissue transplant, tissue typing, home and hospital dialysis. Contact through Sunbelt Physician Placement Service, 5500 N. Braeswood, No. 177, Houston, Texas 77096; 713-729-6068.

GENERAL PRACTICE. Marquette. Boston. Will complete internship in August. Interested in small town practice. Sunbelt Physician Placement Service, 5500 N. Braeswood, No. 177, Houston, Texas 77096; 713-729-6068.

IF YOU NEED A DOCTOR: We make every effort to obtain the very best physician for each and every opening, and to obtain for the physician and his family the best location that will be a permanent home. Sunbelt Physician Placement Service, 5500 N. Braeswood, No. 177, Houston, Texas 77096; 713-729-6068.

CARDIOLOGIST—Board certified internal medicine, 1977; board qualified cardiology. Trained in cardiac cath, echo, CCU, and stress testing. Interested in position in Houston or environs beginning January 1, 1979. Please reply to Ad-838, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

GASTROENTEROLOGIST-INTERNIST, 28, AOA, ABIM certified. University trained in all endoscopic procedures including ERCP. Desires group or hospital based practice in Dallas or Houston area. Available July 1979. Contact: Brian Douglas, MD, 8431 22nd Avenue S, #105B, Bloomington, Minnesota 55420.

GENERAL PRACTITIONER, 39, Texas licensed. Seeking practice in Houston area as partner, associate or solo (will invest or buy practice). Immediately available. Call 713-495-5776.

CARDIOLOGIST, board certified in internal medicine, board eligible in cardiology. Well trained in invasive (Sones and Judkins) and non-invasive cardiology. Seeks practice opportunities in association with other cardiologist(s) in Dallas or Houston area. Available July 1979. Contact Ad-843, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD CERTIFIED GENERAL SURGEON doing fellowship in colon and rectal surgery, and anesthesiologist together available for practice in February 1979. Both Illinois licensed; married with children. Both excellent training and experienced. Wish to move out together. Replies addressed to Rao, MD, 111 E. 20th Street, Lombard, Illinois 60148.

TEXAS LICENSED PHYSICIAN SEEKS opportunity to associate with established general practitioner in Austin area. Please reply to Ad-844, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

LOCUM AVAILABLE for weekend internal medicine practice. Board eligible internist, university trainee—native Texan—currently in post grad training. CV available on request. Prefer East or South Texas. Address reply to Ad-845, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

ANESTHESIOLOGIST—33, FMG, board eligible, FLEX, Texas license applied for, would like to relocate to Texas. Three years residency experience. At present Chief Resident. Available in November, CV on request. Write to Dr. Thakur, 856 West Nelson, Apt. 1002, Chicago, Illinois 60657.

For Sale or For Rent

OFFICE SPACE IN DALLAS—Office suites still available one block from Baylor Hospital in new Medical Center Building, 3801 Gaston Avenue, Dallas, Texas. Pharmacy, laboratory in building. Generous allowance for office improvements. Planning and layout available without cost. Contact Joe Mistrot, 214-328-2761, or write P. O. Box 18237, Dallas, Texas 75218.

MEDICAL BUILDING in San Antonio for sale or lease. 2000 sq. ft. medical clinic in 7 year old building at 1827 Bandera Road. Suitable for all primary care physicians and possibly for two physicians at the same time. Leasing agreement at 30¢ per sq. ft., to include utilities and janitorial service. For information call Irwin Kurtz, MD, 512-696-4233 or Pete Cantu, Realtor, 512-736-4296 or 512-695-8466.

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Home Health Agencies

Dear Ms Baker:

All responsible home health agencies readily endorse Dr Theron C. Hawkins' recommendation of care and attention by physicians in prescribing home health services (*Texas Medicine*, February 1978). However, the undertone of Dr Hawkins' article suggests that home health agencies operate in an environment of irresponsibility and abuse of services. This is completely wrong and fundamentally unfair, and a response is necessary.

Let us consider first the situation with regard to service areas, profits, and reimbursement. All Texas home health agencies receiving Medicare and Medicaid reimbursement are nonprofit. None can begin operating in a new area or expand its operations without showing proof of public need before the Texas Health Facilities Commission.

The Commission, if it permits new or expanded home health services, limits the service area of each home health agency to a certain geographical area—often to one urban county or to several rural counties. Therefore, the following statement in Dr Hawkins' article is inaccurate: "There are no geographical or regional boundaries encouraging cooperation between home health agencies."

It is true that a home health agency may have branches which may make its overall service area very large. However, each branch is limited to its own designated service area, and no home health agency, branch, or subunit may serve a new county without showing public need.

Dr Hawkins' "cost per visit" remarks are inaccurate and inappropriate. To receive Medicare reimbursement, each home health agency must file an annual cost report, and reimbursement is based on cost per visit. The federal government is extremely demanding in terms of cost efficiency; the result is that salaries allowed experienced home health personnel are, to say the least, low. It is uncommon for anyone who works in an administrative or executive position at a home health agency to be paid more than $18,000–$19,000 by Medicare. A registered nurse who was the administrator of a home health agency was paid $23,000 for a 50- 60-hour work week. She had ten years' prior experience as director of nurses at a hospital, but for the year 1977, Medicare only allowed her a salary of about $17,000.

If home health agencies are necessarily not-for-profit organizations, why would a skilled nurse's home health visit often cost more than a doctor's house call? The reason for this is that a skilled nurse's visit is often much more time-consuming than a doctor's. The cost factors should be obvious.

Dr Hawkins stated, "Medicare or Medicaid (the taxpayers) pays the 'total actual cost' of up to 100 visits per year of part-time care for any illness for *each* of the following services: . . ." (emphasis added). He then listed eight categories of visits. In fact, the limit is 100 visits per benefit period for *all* of the listed categories, not for *each* of them. This makes the arithmetic quite different. In addition, Dr Hawkins erroneously stated that home health agencies perform certain chiropractic "adjustments." Home health agencies perform no chiropractic adjustments.

Dr Hawkins stated that "mileage reimbursements at top dollar are also being paid to the home health agencies." Medicare does not pay *any* mileage per visit reimbursement per se to home health agencies. Mileage reimbursement is paid to employees by home health agencies and is calculated as a part of the agency's overall cost. A statewide survey indicated home health agencies are paying their personnel 12–15 cents per mile, not the 17–20 cents per mile allowed by the Internal Revenue Service.

Dr Hawkins implies that charges for 100 miles or more per home health visit are often reported as reimbursible costs by home health agencies. This is misleading. Mileage is calculated as a part of the overall "cost per visit" figure submitted to Medicare for reimbursement purposes. In practice, home health agencies "package" visits so that personnel see as many people as possible on each trip. To be less efficient would mean no reimbursement.

Now let us consider the patient's health care needs. There are many, many elderly, ill persons who prefer living at home rather than at a nursing home or a hospital. For many ill people, home health care is an inexpensive alternative to hospital or nursing home stays. Physicians make few house calls, and they do not encompass nursing and homemaker services. The Texas Health Facilities Commission has authorized three home health agencies to serve the Kerrville area; therefore, it would appear that the home health needs of the community are not being met by doctors' house calls. As far as the patient is concerned, home health services make basic health care

services available on a financially practical basis.

The dilemma of home health care is how to make it a working partner in the medical community. Home health services are relatively new and the public will not be able to fully utilize them without the assistance and careful supervision of physicians. Therefore, physicians must become thoroughly familiar with available home health services and integrate them carefully into their programs of treatment.

I suggest that each physician visit the home health agencies serving his area, and get to know their services and charges. Then, prescribe these services if they will help the patient. Be sure to set up a plan of treatment and review it every 60 days, as Dr Hawkins recommends. Remember that a new plan of treatment is required at least every 60 days and updated for each new illness or hospitalization. A new extended care stay requires a new or updated plan of treatment.

In conclusion, home health agencies provide new and useful services which, with a physician's informed supervision, can lower a patient's health care costs by providing basic health services in the home rather than the hospital. Home health agencies are run on a fair and square basis and deserve to be seen that way. Dr Hawkins' article was misleading and I ask that physicians look into the matter individually and draw their own conclusions from the facts.

Home health is an idea whose time has come!

Sincerely,

William F. Kemp, Legal Counsel, Texas Association of Home Health Agencies, Inc.

Dear Ms Baker:

I enjoyed reading the response to my editorial in the February 1978 issue of *Texas Medicine*, and appreciate the opportunity to comment.

In order to attract reader interest I had to leave out many of the references to laws and regulations regarding the establishment of home health agencies and services. However, let me assure the reader that I read and reread at least six times all of the laws and regulations that were supplied to me by the Social Security Administration concerning home health agencies and services.

To verify the accuracy of my editorial, the reader may obtain the same information from the Social Security Administration in Dallas, Texas, and read it for himself.

What appears to be good in theory and on paper, often is a different matter in actual practice. I requested an investigation of obvious illegal activities of a local home health agency by the Social Security Administration; I was informed that it would depend on the magnitude of the offense as to whether an investigation was conducted or not. In other words, it seems that as long as the sins are small, no investigation will be conducted. This, then, gets down to the right or wrong of the situation.

Sincerely,

Theron C. Hawkins, MD, Kerrville.

EDITORIAL

Health care in county jails

Because of an increasing population, an increasing crime rate, and frequent neglect, the condition of the jails of our country has become unsatisfactory. This, together with increasing emphasis on civil rights, has resulted in many suits on the part of the inmate against the jailing authorities.

The more notable suits in our state probably are those in Houston, Dallas, Lubbock, and El Paso. These suits have been in the federal court and have resulted in rather expensive judgments against the various counties. A frequent complaint in these suits is the lack of adequate medical care. There have now been rulings by many courts, including our Supreme Court, stating that although an individual confined in a jail or a prison does sacrifice some rights, failure to provide him adequate medical care is a violation of his constitutional rights.

In 1975 our legislature, primarily through the efforts of the State Bar of Texas, established the Commission on Jail Standards. This commission was given a charge to develop standards for county jails in our state and to see that the counties were in compliance with these standards. The commission has now developed certain minimum standards for construction, maintenance, and operation of county jails. It will be involved in the continuing inspection operation and also in a continuing effort to aid the counties in reaching these minimum standards. It is hoped that by these means, the conditions of Texas jails can be made adequate and future expensive suits in federal courts can be minimized if not completely avoided.

More than two years ago, the American Medical Association, under a grant from the United States Department of Justice, Law Enforcement Assistance Administration, undertook to develop standards for medical care in jails. They have now developed tentative standards after extensive work and investigation in six states. Under an extension of their original grant, they are now broadening their investigation to ten other states, and Texas has been chosen as one of those states.

Texas physicians need to be aware of the medical care problems in our jails and the consequences of failure to rectify them. Many inmates have never seen a physician. Alcohol and drug abuse, epilepsy, results of trauma, infectious disease, and the multiple other medical problems in the usual civilian population are all present; however, a recent survey indicated that only 18% of the counties provided regularly scheduled visits by medical personnel.

Doctors and county medical societies should work with local authorities in the effort to assure adequate medical care in jails. Interest, cooperation, and participation are all needed. Medical service should be adequately reimbursed but first it must be provided.

H. H. Brindley, MD, Temple.

Oct78

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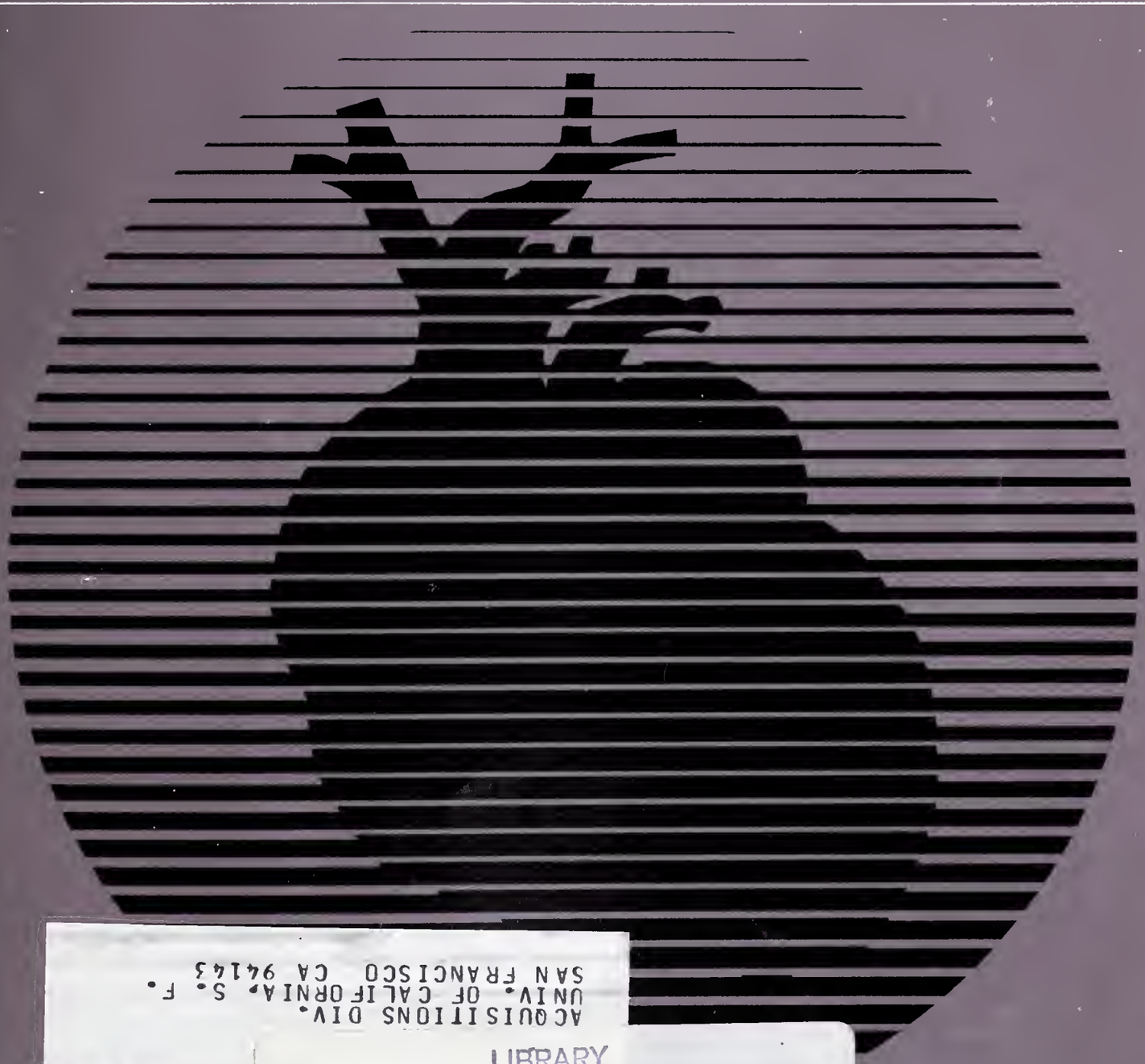

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On the cover

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Texas groups intensify immunization efforts

The Texas Medical Association continues to distribute immunization reminder cards to Texas physicians to encourage patient immunization updates.

The Texas Osteopathic Medical Association and the Texas Department of Health are working with TMA to increase immunization totals to more than 90% of the state's population.

The cards are designed for physicians to send to patients who have fallen behind in immunization schedules. In 1977, the program's first year, more than 31,175 cards were mailed.

The card-mailing campaign is part of the work by the Texas Volunteers for Immunization Action, which is responsible for disseminating immunization information.

Physicians may order the cards from the TMA Communication Department, 1801 N Lamar Blvd, Austin, TX 78701 (telephone 512–477-6704).

The Texas Board of Health has adopted new immunization regulations pertaining to measles and mumps which expand the number of school children required to be immunized.

Changes were prompted in part by an eight-fold increase in measles in Texas between 1976 and 1977. Previously, children ages 1 through 11 were required to be immunized against measles. Effective Sept 1, 1978, all children between the ages of 18 months and 12 years will need to be immunized.

Each succeeding year, the upper range will be expanded one year.

Children entering the public schools or day care centers in Texas must have this protection. Mumps vaccination, which has not been required previously, will be required for kindergarten and first grade students beginning Sept 1, 1979. One grade will be added to the upper limit each succeeding year until the coverage is complete.

Beginning Sept 1, 1979, a new history of measles illness will not excuse a child from the immunization requirements unless a physician's statement attests to the illness.

Mylie Durham, MD

Texas makes progress in cost control battle

Progress is being made in the battle to control health care costs in Texas, the TMA president told a group of hospital officials in August.

Mylie Durham Jr, MD, Houston, said Texas doctors' efforts are supporting the American Medical Association president's call for doctors to keep their rate of fee increases in line with the general inflation rate.

Dr Durham said one of the first steps in controlling costs is to fine-tune doctors' knowledge of how to cut costs without sacrificing quality of care. One example of TMA's efforts is sponsorship of practice management workshops statewide to inform physicians about such things as openly discussing fees with patients, urging patients to handle their own insurance forms, and encouraging them to pay at the time of the visit. Such procedures as these can cut out large amounts of expensive paperwork for physicians and make it easier for them to control costs.

Since their fees take less than 20 cents out of the health care dollar, doctors need to be concerned with other areas as well, he said. TMA is helping control hospital-related costs, one of the major areas of expenditures, by urging doctors to be increasingly sensitive to how long they keep patients in the hospital, what tests and drugs they use, and whether certain services such

as suites and private duty nurses are necessary.

Dr Durham also discussed TMA's pamphlet, "Your Health Is In Your Hands," that offers six guidelines for a healthier lifestyle including exercising regularly, controlling weight, eating properly, and getting enough sleep.

TMA also is negotiating with health planners and insurors to develop low-cost, efficient procedures, Dr Durham said.

In his prepared remarks to the Late Summer Seminar for Hospital Governing Boards and Administrators, Dr Durham said physicians would continue to support hospitals' successful efforts to cut their own costs.

Trust packet offers information on insurance

A packet providing complete information on participation in the Texas Medical Liability Trust was sent to all Texas Medical Association members in September.

The 20-page document and application provide a complete explanation about policies and programs of the health care liability claim trust created by the Texas Medical Association.

The document includes an explanation of risk factors, regulations of the trust, organization and management, and a description of subordinated surplus deposit certificates. The booklet also explains the loan program and provides instructions for subscription as well as additional information.

Physicians who are licensed to practice medicine in Texas, who have a majority of their practice in Texas, and who are members of the Texas Medical Association are eligible to apply for insurance coverage from the trust.

Cost and coverage for the trust will be determined by risk rating techniques considering the type of practice, location, and claims experience. A broad range of policy limits has been determined to be feasible, and protection will be based on the incidence of occurrences rather than on the time of suit or other legal actions. Initially, a seven-level risk classification system will be used to provide more equitable allocation of risk.

For further information, write or call the Texas Medical Liability Trust, 211 E 7th, Austin, TX 78701, telephone (512) 472-3322.

Family practice physicians starting to show increase

Nationally, much progress has been made in increasing the number of family practice physicians in the past 11 years, but much remains to be done, says a report in the *Journal of the American Medical Association*.

The number of approved family practice residency programs had grown to 325 by mid-1977, according to the report in the Aug 4 *JAMA*. The number of residents enrolled increased to 5,421 and the number of first-year residents increased to 2,043. More than 80% of US medical schools developed teaching units for family practice, where virtually none had existed.

While many new training programs have been launched, the products of these programs have not yet increased sufficiently to make a major impact on the number of family physicians in practice, say William R. Willard, MD, of the University of Alabama College of Community Health Sciences, and C. H. William Ruhe, MD, senior vice president of the AMA. Both men are members of the AMA's Ad Hoc Committee on Education for Family Practice, and are authors of the report.

In 1976, for the first time in many years, there was an increase to 54,332 physicians in general and family practice.

The AMA's ad hoc committee endorses the American Academy of Family Physicians' goal of having 25% of American medical school graduates enter residency training in family practice, the report declares. That would mean doubling the number who are now entering such programs and would require a major increase in activity and support, but probably is achievable by 1985, the committee says.

Financial support for family practice training continues to be a major problem. The committee recommends a diversified base of funds from federal, state and local government, foundation and other private donor support, and money from fees for patient care.

The new (1969) American Board of Family Practice has lent status and stability to the specialty of family practice. More than 15,000 physicians are now diplomates of the board, which became the first specialty board to require continuing education and recertification.

The family physicians have had problems in obtaining hospital privileges, even after the board certification, and the committee calls on the AMA, the American Hospital

Association, and the Joint Committee on Accreditation of Hospitals to take steps to ensure that family practitioners have practice privileges commensurate with their education and skills.

An expansion of the preceptor program as a part of training is also recommended by the committee.

Society survey analyzes opinions of physicians

San Antonio-area physicians are conscientious, moderately paid, civically inert individuals who should be required to pass medical exams periodically, according to most of the persons responding to a medical society survey early this year.

The professionally designed survey, commissioned by the Bexar County Medical Society, canvassed more than 400 persons in the San Antonio area to better understand public opinion of physicians there.

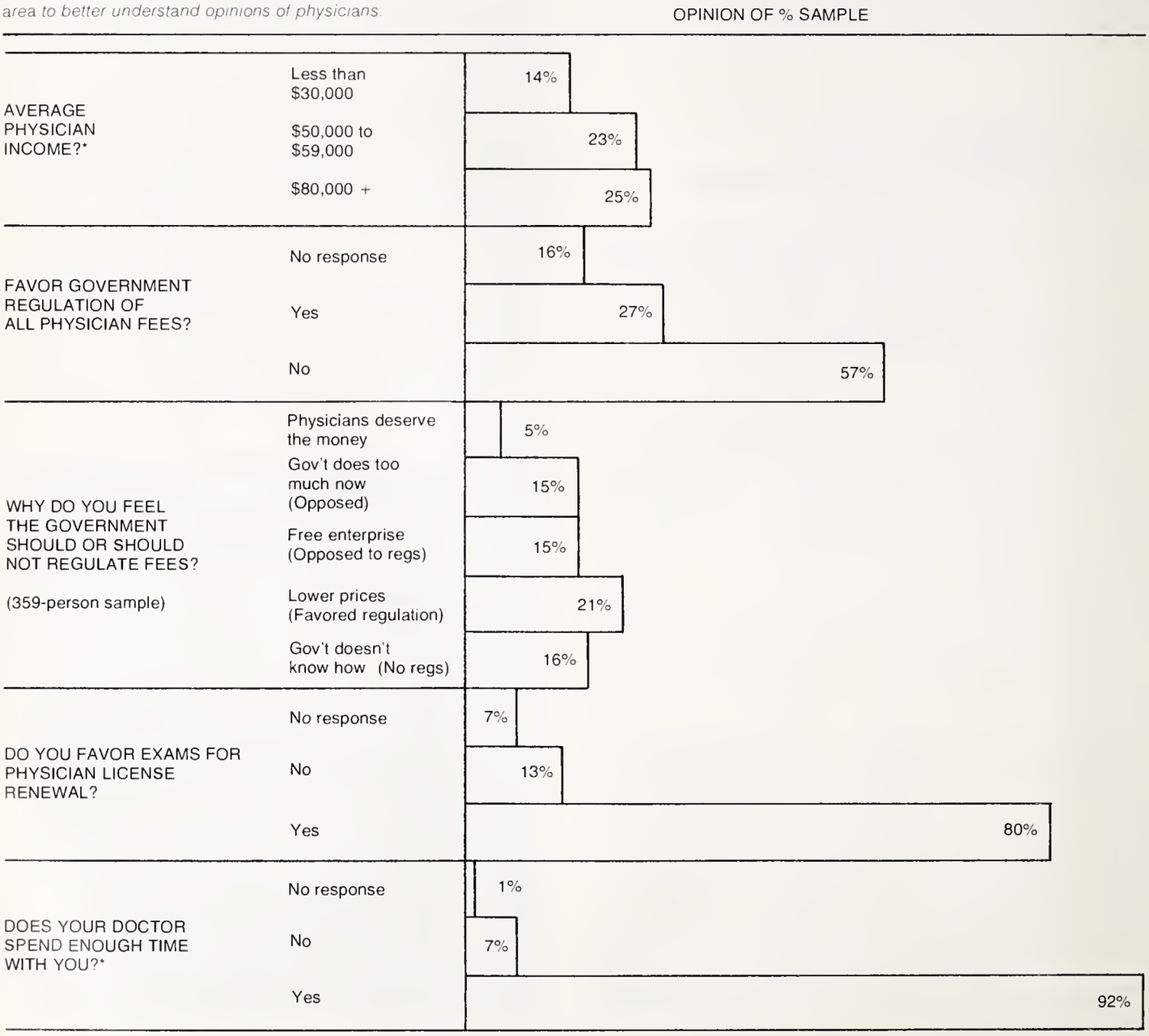
According to one published summary of survey results, most persons questioned said physicians were less concerned with monetary gain than with helping patients. When asked to estimate the average physician's annual income, only 13% thought physicians were overpaid.

Eighty percent, however, felt physicians' fees were reasonable, and that their doctors spent ample time with them. Another 80% agreed that the periodic medical competency tests should be required for license renewal.

Lawyers were thought to be the primary culprits in the "malpractice problem," with physicians and "the courts" holding a distant third place—behind the patients themselves.

More than half of the respondents waived the opportunity to comment on their health care, but 25% called available medical attention "good." While such statements leaned toward the positive side of public opinion, more than half of those questioned could not think of a civic contribution by physicians.

Selected results of a poll commissioned by the Bexar County Medical Society which canvassed more than 400 persons in the San Antonio area to better understand opinions of physicians.



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JCAH adopts new policies and standards

New policies and standards for pathology services, ambulatory health care, health care costs, and hospital institutional planning have been approved by the Joint Commission on Accreditation of Hospitals' Board of Commissioners.

Moves to reorganize the JCAH are also under way.

As the JCAH continues to recommend new policies and standards, the Texas Medical Association has been active in making suggestions and developing liaison with the organization.

The JCAH has adopted a policy to assure that cost will be considered in any JCAH actions that affect the provision of health care and related services.

"In keeping with its primary objective to promote the optimal achievable quality of care for those in need of it, the Joint Commission shall exercise independent and professional judgment in developing and implementing appropriate standards and survey procedures for voluntary accreditation. In so doing, the Joint Commission through its accreditation programs shall continue to promulgate standards that enhance cost effectiveness through the control of practices and settings that minimize risk to both patients and personnel," says the statement.

The statement adds that "the Joint Commission shall continue its efforts to reduce the duplicative surveys and inspections that health care institutions are subjected to and that impose a financial burden without significantly improving the quality of care."

Pathology services

Implementation methodology for hospital accreditation standards of pathology and medical laboratory services was also approved. The methodology affords alternatives to traditional survey procedures.

The board approved the addition of qualified medical technologists to the Hospital Accreditation Program (HAP) field staff. When necessary, a technologist will assist the regularly assigned physician surveyor in the extensive review of the clinical laboratory area. The medical technologist will report to and be supervised by a pathologist at the JCAH central office.

Alternatively, the plan authorizes, on a trial basis, the acceptance of documentation of satisfactory accreditation by the College of American Pathologists (CAP) as evidence of a hospital's substantial compliance with JCAH's new standards. Acceptance of the documentation will preclude the necessity for augmenting the JCAH survey team with a medical technologist.

The JCAH physician surveyor's review of laboratory services in CAP-accredited hospitals will not entail an in-depth review of the laboratory. HAP survey fees will vary based on the composition of the survey team, which, in turn, will be determined by the presence or absence of CAP accreditation.

When the JCAH board of commissioners adopted the revised HAP standards for pathology and medical laboratory services in April 1978, it authorized the JCAH staff to negotiate with the Department of Health, Education, and Welfare to attain equivalency of the new standards with counterpart federal requirements for participation in Medicare. This action was taken to retain deemed status. The 1965 Social Security Act establishing Medicare provided for JCAH-accredited hospitals to be deemed in compliance with the conditions of participation for Medicare. The DHEW Secretary has the authority to deem any new or revised standards as at least equivalent to counterpart federal conditions of participation.

The DHEW Secretary has found the standards to be equivalent to the DHEW regulations. However, retention of deemed status in this area depends on JCAH demonstrating its ability to implement the new standards appropriately. Should JCAH not attain deemed status, accredited hospitals that seek Medicare reimbursement will face inspection of their clinical laboratories by another agency.

The new section on pathology services will become effective for accreditation purposes Jan 1, 1979. The reorganization of this section has permitted the use of six rather than the eight previous standards. The new section introduces new standards, particularly in the area of quality control. Direction/supervision of pathology and medical laboratory services is more clearly defined, requiring adequate technical performance at all times. New areas addressed in the standards apply to laboratories providing histocompatibility testing, virology, parasitology, and electron microscopy. Requirements pertaining to the performance of autopsies have been significantly expanded.

Ambulatory health care

New standards for ambulatory health care organizations have also been adopted by the JCAH.

Highlights of the new standards include: the addition of standards for surgery; the addition of a standard concerning patients rights; the revision of standards relating to quality of care, introducing more specificity; and a quality assurance section, compatible with current requirements for professional standards review organizations and with guidelines for federally qualified health maintenance organizations.

Institutional planning

JCAH requirements for hospital institutional planning

have recently been recognized by the DHEW Secretary as being equivalent to counterpart requirements set forth in the Medicare conditions of participation.

Since the enactment of the Medicare legislation in 1965, the JCAH's hospital accreditation standards (except for those relating to institutional planning and utilization review) have been deemed to be at least equivalent to Medicare's conditions of participation. Thus, JCAH-accredited hospitals have not been subject to additional survey by DHEW-contracted state agencies to be certified eligible for Medicare participation. As a result of the DHEW notification, deemed status is now extended to cover compliance with institutional planning requirements in JCAH-accredited hospitals.

JCAH reorganization

The JCAH has also begun a major reorganization. The changes resulted from a number of studies and interviews with numerous souces that identified needed changes in policy, organization, and operation to assure the orderly and efficient improvement of JCAH accreditation programs.

Since its inception in 1951, the JCAH has undergone extensive growth. As a result of additional accreditation programs, the situation "resulted in confusions of staff roles and reporting relationships, as well as the appearance of a lack of coordination of survey and accreditation activity," said JCAH president John E. Affeldt, MD.

TMA involvement

The Texas Medical Association has continued to be involved with the JCAH. Resolutions concerning the role and policies of the JCAH have been considered at several past sessions of the TMA House of Delegates.

In response to those resolutions, the TMA Council on Medical Education and Hospitals has taken an active role in considering JCAH policies and effects of those policies on Texas physicians. The council has met with Dr Affeldt and, as one of its priorities, the council plans to continue meetings with JCAH representatives.

Kenneth Ashworth, PhD

Commissioner cites need for minority representation

The Texas commissioner of higher education has emphasized the need to increase minority representation in the professions by assuring that a greater number of minority students are well prepared academically to meet the admissions standards of graduate and professional schools.

Kenneth Ashworth, PhD, told members of the League of United Latin American Citizens in San Antonio that an increase in the pool of "well-qualified, high-performing minority high school graduates is essential."

Commenting on the Supreme Court ruling in the Allan Bakke case, he said the decision left the "political process open to promote the recruitment and admission of minority students" by clearly allowing race to be considered as a factor in college admissions.

"Not only is the decision in the middle between the two extremes," Dr Ashworth said, "it covers a wide swath of territory in that middle ground area. And I say that is good. There comes a time when we need to stop arguing and get on with the show."

Bakke brought suit claiming discrimination after he was denied admission to the University of California Medical School at Davis, which reserved 16 of the 100 positions in the entering class for minority applicants. The 16 minority students selected had scored lower on the standard admissions requirements than had Bakke, causing him to maintain that he was denied equal consideration because of his race.

Lack of minority representation in the professions—particularly the medical field—is a statewide problem, Dr Ashworth said. "And we can't just look at the end of the tube where the professional graduates come out. We need to look at all of the processes between the connections to work with motivations as well as skill acquisition, general education, and social adjustments."

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Six states file suit against FTC rules

Six state governments including Texas have filed lawsuits challenging the authority of the Federal Trade Commission (FTC) to overturn prohibitions against the advertising of prices for eyewear and eye examinations.

Suits filed by Texas, Nebraska, Indiana, Oklahoma, Kentucky, and Wyoming claim that the FTC overstepped its authority in preempting state laws that restrict advertising of ophthalmologic goods and services.

The suits question whether Congressional authority to override state laws can be extended to federal agencies. Most states have laws that totally or partially restrict price advertising of eyeglasses.

The actions follow the lead of earlier suits filed by the American Medical Association and the American Optometric Association, which ask the Circuit Court of Appeals for Washington DC to throw out the new FTC rule.

The FTC regulation—which is now in force, since the US Supreme Court earlier refused to prevent its implementation—would prohibit states from having laws prohibiting the advertising of eyeglasses and other eye care services.

The rule also requires ophthalmologists and optometrists to release a written prescription for eyeglasses and contact lenses to any patient who requests it; and prohibits physicians and optometrists from charging patients extra for the prescription or from requiring patients to buy eyewear from them.

Texas records cases of Hansen's disease

Texas is one of five states having a significant and continuing problem with Hansen's disease (HD), formerly called leprosy.

A state registry monitoring cases of the disease is currently operated and maintained by the Texas Department of Health. Between 10 and 20 new cases are added each year to the official state registry.

Texas' patients are primarily concentrated in South Texas, between the lower Rio Grande Valley and the Houston/Galveston area, according to the health department.

A valuable resource available to patients with the disease in Texas is the United States Public Health Service Hospital at Carville, La. The staff of this facility offers individual and family centered services focusing on special problems experienced by those having HD, says the Texas Department of Health.

The health department says numerous misconceptions regarding the etiology, communicability, and treatment of HD prevail. Some of the misconceptions have been attributed to factors including the retention of erroneous information, often the result of misinterpretation of biblical writings: the unawareness of scientific facts, leading to uninformed and irrational fear of the disease; and a lowered incidence of the disease, contributing to a decrease in the public's and professional's familiarity with signs and symptoms associated with HD.

For more information about the disease contact the Texas Department of Health, Bureau of Communicable Disease Services, 1100 West 49th Street, Austin, TX 78756.

CHAMPUS introduces new claim form

CHAMPUS officials have introduced the first in a series of new claim forms.

Designated the CHAMPUS Form 500, it will be used by both CHAMPUS and CHAMPVA beneficiaries for noninstitutional care from civilian providers such as physicians, pharmacies, medical suppliers, medical equipment suppliers, ambulance companies, and laboratories.

Noninstitutional claims account for about 70% of all claims processed by CHAMPUS contractors.

At present, approximately three out of every ten noninstitutional claims are returned to beneficiaries for additional or correct information, according to CHAMPUS director Joseph C. Rhea.

"Whenever a claim must be returned, processing is delayed and this, in turn, slows down any payment due," Rhea said.

Although limited quantities should be available earlier, the new form will be generally available by early November. Those who have the new form are encouraged to begin using it immediately, but CHAMPUS contractors will continue to process noninstitutional claims received on the old DA Form 1863-2 until Feb 1, 1979.

TMA delegates will meet Nov 10, 11, and 12 in Austin

An address by TMA president Mylie Durham, MD, Houston, and presentation of TMA's Distinguished Service Award to Jose Rodarte, MD, Temple, will highlight the opening session of the TMA House of Delegates in Austin Friday, Nov 10.

The interim session will convene at 1:30 PM Friday at the Austin Hilton Inn. Also during the opening session, officials will report on the Texas Medical Liability Trust and on the November general elections.

Reference committees will convene at the conclusion of the opening session.

The second session of the House will convene at 9 AM Saturday, giving members more time to review reference committee reports, and the third session will begin at 8 AM Sunday.

Resolutions to be considered by the House of Delegates are due to TMA by Oct 6. Handbooks will be mailed to delegates and alternate delegates in late October.

New programs highlight TMA's fall conference

Nationally prominent speakers, a new scientific program, and meetings of boards, councils, and committees were all part of TMA's Sept 23 Conference on Medical Issues in Austin.

Speakers scheduled to make presentations during the fall conference included Robert B. Hunter, MD, chairman, AMA board of trustees; Betty Jane Anderson, JD, AMA assistant general counsel; Jackson W. Riddle, MD, director, AMA division of educational policy and development; Sen John Tower; and Harry N. Peterson, JD, secretary, AMA Council on Legislation.

Texas speakers included William F. Ross, MD, Dallas, president-elect, Texas Institute for Medical Assessment; John M. Smith, Jr, MD, San Antonio, TMA immediate past president; C. Lincoln Williston, Austin, TMA executive director; Donald M. Anderson, Austin, director, TMA department of government health programs; and Milton V. Davis, MD, Dallas, chairman, board of governors, Texas Medical Liability Trust. Other Texas speakers included Charles H. Wilson, MD, Wichita Falls, chairman, TEXPAC board of directors; Jerry Marcontell, MD, Houston, chairman, TMA Council on Communication; Charles Ward, Houston, president, Media Communications, Inc; George Christian, Austin, George Christian Associates; Jim Hickox, Houston, executive director, Harris County Medical Society; and Robert Jeffrey, chairman, department of speech communication, The University of Texas at Austin.

For the first time, TMA offered a scientific program in conjunction with the fall conference. More than 95 physicians attended the postgraduate courses offering hour-for-hour credit in Category 1 of the AMA Physician's Recognition Award Program.

TMA's Executive Board met Sunday morning to consider council and committee recommendations, review TMA reorganization subjects, review council and committee priorities for 1979, and identify TMA's 1979 priorities.

Cancer society awards grant to San Antonio center

The American Cancer Society has awarded $186,000 to The University of Texas Health Science Center at San Antonio to support cancer research.

A new two-year grant of $100,000 is for a project directed by C. Kent Osborne, MD, who is attempting to define biochemical factors affecting the growth of human breast cancer.

These factors, which include insulin and certain other small proteins, are known to stimulate cell growth, but it is not known how this is accomplished, Dr Osborne said.

A one-year renewal grant of $61,000 will aid William L. McGuire, MD, to continue investigating the mechanism of androgen-induced breast cancer regression. The project involves studying how pharmacologic doses of steroids cause tumor regression in breast cancer patients.

Baylor awarded funds for population research

The Center for Population Research and Reproductive Biology at Baylor College of Medicine, Houston, has been awarded a $750,000 grant by the Andrew W. Mellon Foundation.

The funds, which will be available during a three-year

Four of the speakers at TMA's fall conference giving their advice on effective public relations for the physician and the profession were, from left to right, George Christian, Robert Jeffrey, Jim Hickox, and Charles Ward

Check your mail.

"A health care liability claim trust created by the Texas Medical Association"

TMLT

TEXAS MEDICAL LIABILITY TRUST

During the first week of September, the Texas Medical Liability Trust, created by the Texas Medical Association, mailed you a complete packet of information on the Trust and how to apply for coverage.

After over a year of careful planning, and with the approval of the TMA House of Delegates in May 1978, a program of professional liability insurance has been developed and is being made available to the TMA membership at this time. It is anticipated that the Trust will be in a position to begin writing policies around December 1, 1978.

For more information, call: 512 472-3322.

period, are specially earmarked to provide support for young faculty and postdoctoral scientists entering basic science research in reproductive biology.

The research being carried out by Baylor scientists, which the new money will help finance, focuses on the development of new, safer, and more efficient male and female contraceptives that have no side effects on the human body, alleviation of infertility in childless couples, and a total understanding of fertilization and developmental processes in the human embryo in an attempt to eliminate genetic and birth defects.

The Baylor Center for Population Research and Reproductive Biology, located at St Luke's Episcopal Hospital, was established in 1973 for basic research and the application of laboratory concepts to the understanding and treatment of problems related to the human reproductive process.

Public lacks knowledge of heart attack causes

Most persons know relatively little about probable causes of heart attacks, says a report in the Aug 25 *Journal of the American Medical Association*.

Richard B. Shekelle, MD, of the Department of Preventive Medicine, Rush-Presbyterian-St Luke's Medical Center, Chicago, headed a survey in which 617 adults were queried about their knowledge of what causes heart attacks.

Half of those questioned couldn't name any of the risk factors, and only 1% named all three. Only 28% named cigarette smoking, 21% named high blood pressure, and 13% named cholesterol or fat in the diet or blood.

The individuals also were asked whether heart attacks could be prevented. Three fourths believed that prevention is possible, but very few named specific behaviors that would reduce risk, other than abstaining from smoking. Blood pressure and cholesterol controls were mentioned by less than 10%.

"Large-scale, sustained programs of public education about primary prevention of coronary heart disease are clearly needed and might well lead to substantial reduction in the level of risk for atherosclerotic cardiovascular disease," Dr Shekelle said.

The survey was conducted as a program of the Chicago Heart Association.

Coming next month

Articles scheduled for November are on bronchial asthma; detection, evaluation, and management of children who have been exposed to lead; potential increase of chlamydiosis (psittacosis) in people who own pet birds; childbearing and the need for contraceptives among adolescents; progress with appendicitis in the young patient; and education of the child with juvenile-onset diabetes mellitus.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media[a]	1978 through 8/31	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	+36.0%	+38.0%	−23.1%	1.2%
Loomis-Sayles Mutual Fund	+ 6.9%	+25.3%	−18.2%	3.8%
Mercantile Bank HR-10 Equity Fund	+ 6.6%	+56.0%	−16.6%	b
Mercantile Bank HR-10 Fixed Income Fund	+ 2.0%	+34.6%	+26.9%	b
T. Rowe Price Growth Stock Fund	+18.3%	+33.9%	−33.8%	1.9%
T. Rowe Price New Income Fund	− 3.2%	+ 6.6%	N/A	7.9%
Stein, Roe & Farnham Balanced Fund	+ 8.8%	+25.8%	−23.8%	3.3%
Standard & Poor 500 Stock Average	+ 8.6%	+38.8%	−19.4%	
Dow Jones Industrial Average	+ 5.5%	+34.8%	−18.5%	

a. Mutual Fund performances include reinvested capital gain distributions.
b. Mercantile HR-10 Equity and Fixed Income Funds make no distributions. All earnings are retained in the respective funds.

one of today's trends
in oral contraception . . .

stepping down estrogen levels to 50 mcg?

Do you have patients currently taking oral contraceptives containing 100 mcg of estrogen for contraception? A switch to a 50 mcg product may be desirable.§

Prospective and retrospective studies indicate a relationship between estrogen doses and serious adverse side effects. ". . . preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism. . ."†

The incidence of these side effects decreases as the dosage of estrogen decreases to 50 mcg, as demonstrated in British studies.†

†See Prescribing Information

a step in the right direction

Ortho-Novum 1/50

TRADEMARK

21 and 28-day regimens

Each yellow tablet contains 1 mg norethindrone and 0.05 mg mestranol.
Each green tablet in the 28-day regimen contains inert ingredients.

§Serious as well as minor side effects have been reported with the use of oral contraceptives. These include thromboembolic disease. The physician should remain alert to the earliest manifestations of any symptoms of serious disease and discontinue oral contraceptive therapy when appropriate. The physician should be fully aware of the complete Prescribing Information for this product.

See the complete Prescribing Information for this product, a summary of which is on the next page.

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OJ 1291

ORTHO-NOVUM* Tablets

IMPORTANT NOTE—This information is a BRIEF SUMMARY of the complete prescribing information provided with the product and therefore should not be used as the basis for prescribing the product. This summary was prepared by deleting from the complete prescribing information certain text, tables, and references. The physician should be thoroughly familiar with the complete prescribing information and patient information before prescribing the product.

INDICATION: CONTRACEPTION. The pregnancy rate in women using conventional combination oral contraceptives (containing 35 mcg or more of ethinyl estradiol or 50 mcg or more of mestranol) is generally reported as less than one pregnancy per 100 woman-years of use. Slightly higher rates (somewhat more than one pregnancy per 100 woman-years of use) are reported for some combination products containing 35 mcg or less of ethinyl estradiol, and rates on the order of three pregnancies per 100 woman-years are reported for the progestogen-only oral contraceptives. Table 1 gives ranges of pregnancy rates reported in the literature for other means of contraception. The efficacy of these means of contraception (except the IUD) depends upon the degree of adherence to the method.

Table 1: Pregnancies Per 100 Women-Years. IUD, less than 1-6; Diaphragm with spermicidal product (creams or jellies), 2-20; Condom, 3-36; Aerosol foams, 2-29; Jellies and creams, 4-36; Periodic abstinence (rhythm) all types, less than 1-47; 1. Calendar method, 14-47; 2. Temperature method, 1-20; 3. Temperature method—intercourse only in postovulatory phase, less than 1-7; 4. Mucus method, 1-25; No contraception, 60-80. **DOSE-RELATED RISK OF THROMBOEMBOLISM FROM ORAL CONTRACEPTIVES:** Two studies have shown a positive association between the dose of estrogens in oral contraceptives and the risk of thromboembolism. For this reason, it is prudent and in keeping with good principles of therapeutics to minimize exposure to estrogen. The oral contraceptive product prescribed for any given patient should be that product which contains the least amount of estrogen that is compatible with an acceptable pregnancy rate and patient acceptance. It is recommended that new acceptors of oral contraceptives be started on preparations containing .05 mg or less of estrogen. **CONTRAINDICATIONS:** Oral contraceptives should not be used in women with any of the following conditions: 1. Thrombophlebitis or thromboembolic disorders. 2. A past history of deep vein thrombophlebitis or thromboembolic disorders. 3. Cerebral vascular or coronary artery disease. 4. Known or suspected carcinoma of the breast. 5. Known or suspected estrogen-dependent neoplasia. 6. Undiagnosed, abnormal genital bleeding. 7. Known or suspected pregnancy (see WARNINGS, No. 5).

WARNINGS

Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. This risk increases with age and with heavy smoking (15 or more cigarettes per day) and is quite marked in women over 35 years of age. Women who use oral contraceptives should be strongly advised not to smoke.
The use of oral contraceptives is associated with increased risk of several serious conditions including thromboembolism, stroke, myocardial infarction, hepatic adenoma, gallbladder disease, hypertension. Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks.

1. THROMBOEMBOLIC DISORDERS AND OTHER VASCULAR PROBLEMS. An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well established. Four principal studies in Great Britain and three in the United States have demonstrated an increased risk of fatal and nonfatal venous thromboembolism and stroke, both hemorrhagic and thrombotic. These studies estimate that users of oral contraceptives are 4 to 11 times more likely than nonusers to develop these diseases without evident cause. Overall excess mortality due to pulmonary embolism or stroke is on the order of 1.0 to 3.5 deaths annually per 100,000 users and increases with age. **CEREBROVASCULAR DISORDERS:** In a collaborative American study of cerebrovascular disorders in women with and without predisposing causes, it was estimated that the risk of hemorrhagic stroke was 2.0 times greater in users than in nonusers and the risk of thrombotic stroke was 4.0 to 9.5 times greater in users than in nonusers.
MYOCARDIAL INFARCTION: An increased risk of myocardial infarction associated with the use of oral contraceptives has been reported confirming a previously suspected association. These studies, conducted in the United Kingdom, found, as expected, that the greater the number of underlying risk factors for coronary artery disease (cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, history of preeclamptic toxemia), the higher the risk of developing myocardial infarction, regardless of whether the patient was an oral contraceptive user or not. Oral contraceptives, however, were found to be a clear additional risk factor. The annual excess case rate (increased risk) of myocardial infarction (fatal and nonfatal) in oral contraceptive users was estimated to be approximately 7 cases per 100,000 women users in the 30-39 age group and 67 cases per 100,000 women users in the 40-44 age group. In terms of relative risk, it has been estimated that oral contraceptive users who do not smoke (smoking is considered a major predisposing condition to myocardial infarction) are about twice as likely to have a fatal myocardial infarction as nonusers who do not smoke. Oral contraceptive users who are also smokers have about a 5-fold increased risk of fatal infarction compared to users who do not smoke, but about a 10-to 12-fold increased risk compared to nonusers who do not smoke. Furthermore, the amount of smoking is also an important factor. In determining the importance of these relative risks, however, the baseline rates for various age groups must be given serious consideration. The importance of other predisposing conditions mentioned above in determining relative and absolute risks has not as yet been quantified; it is quite likely that the same synergistic action exists, but perhaps to a lesser extent. **Risk of Dose:** In an analysis of data derived from several national adverse reaction reporting systems, British investigators concluded that the risk of thromboembolism including coronary thrombosis is directly related to the dose of estrogen used in oral contraceptives. Preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism than those containing 50-80 mcg of estrogen. Their analysis did suggest, however, that the quantity of estrogen may not be the sole factor involved. This finding has been confirmed in the United States. Careful epidemiological studies to determine the degree of thromboembolic risk associated with progestogen-only oral contraceptives have not been performed. Cases of thromboembolic disease have been reported in women using these products, and they should not be presumed to be free of excess risk. The risk of thromboembolic and thrombotic disorders, in both users and nonusers of oral contraceptives, increases with age. Oral contraceptives are, however, an independent risk factor for these events. **ESTIMATE OF EXCESS MORTALITY FROM CIRCULATORY DISEASES:** A large prospective study carried out in the United Kingdom estimated the mortality rate per 100,000 women per year from diseases of the circulatory system for users and nonusers of oral contraceptives according to age, smoking habits, and duration of use. The overall excess death rate annually from circulatory diseases for oral contraceptive users was estimated to be 20 per 100,000 (ages 15-34—5/100,000; ages 35-44—33/100,000; ages 45-49—140/100,000), the risk being concentrated in older women, in those with a long duration of use, and in cigarette smokers. It was not possible, however, to examine the interrelationships of age, smoking, and duration of use, nor to compare the effects of continuous versus intermittent use. Although the study showed a 10-fold increase in death due to circulatory diseases in users for five or more years, all of these deaths occurred in women 35 or older. Until larger numbers of women under 35 with continuous use for five or more years are available, it is not possible to assess the magnitude of the relative risk for this younger age group. This study reports that the increased risk of circulatory diseases may persist after the pill is discontinued. Another study published at the same time confirms a previously reported increase of mortality in pill users from cardiovascular disease. The available data from a variety of sources have been analyzed to estimate the risk of death associated with various methods of contraception. The estimates of risk of death for each method include the combined risk of the contraceptive method (e.g., thromboembolic and thrombotic disease in the case of oral contraceptives) plus the risk attributable to pregnancy or abortion in the event of method failure. This latter risk varies with the effectiveness of the contraceptive method. The findings of this analysis are shown in Figure 1 below. The study concluded that the mortality associated with all methods of birth control is low and below that associated with childbirth, with the exception of oral contraceptives in women over 40 who smoke. (The rates given for pill only/smokers for each age group are for smokers as a class. For "heavy" smokers [more than 15 cigarettes a day], the rates given would be about double; for "light" smokers [less than 15 cigarettes a day], about 50 percent.) The mortality associated with oral contraceptive use in nonsmokers over 40 is higher than with any other method of contraception in that age group. The lowest mortality is associated with the condom or diaphragm backed up by early abortion. The risk of thromboembolic and thrombotic disease associated with oral contraceptives increases with age after approximately age 30 and, for myocardial infarction, is further increased by hypertension, hypercholesterolemia, obesity, diabetes, or history of preeclamptic toxemia and especially by cigarette smoking. The risk of myocardial infarction in oral contraceptive users is substantially increased in women age 40 and over, especially those with other risk factors. The use of oral contraceptives in women in this age group is not recommended. Based on the data currently available, the following chart gives a gross estimate of the risk of death from circulatory disorders associated with the use of oral contraceptives:

SMOKING HABITS AND OTHER PREDISPOSING CONDITIONS—RISK ASSOCIATED WITH USE OF ORAL CONTRACEPTIVES

Age	Below 30	30-39	40+	
Heavy smokers	C	B	A	A—Use associated with very high risk.
Light smokers	D	C	B	B—Use associated with high risk.
Nonsmokers (no predisposing conditions)	D	C,D	C	C—Use associated with moderate risk.
Nonsmokers (other predisposing conditions)	C	C,B	B,A	D—Use associated with low risk.

The physician and the patient should be alert to the earliest manifestations of thromboembolic and thrombotic disorders (e.g., thrombophlebitis, pulmonary embolism, cerebrovascular insufficiency, coronary occlusion, retinal thrombosis, and mesenteric thrombosis). Should any of these occur or be suspected, the drug should be discontinued immediately. A four- to six-fold increased risk of postsurgery thromboembolic complications has been reported in oral contraceptive users. If feasible, oral contraceptives should be discontinued at least four weeks before surgery of a type associated with an increased risk of thromboembolism or prolonged immobilization. 2. OCULAR LESIONS. There have been reports of neuro-ocular lesions such as optic neuritis or retinal thrombosis associated with the use of oral contraceptives. Discontinue oral contraceptive medication if there is unexplained, sudden or gradual, partial or complete loss of vision; onset of proptosis or diplopia; papilledema, or retinal vascular lesions and institute appropriate diagnostic and therapeutic measures. 3. CARCINOMA. Long-term continuous administration of either natural or synthetic estrogen in certain animal species increases the frequency of carcinoma of the breast, cervix, vagina, and liver. Certain synthetic progestogens, none currently contained in oral contraceptives, have been noted to increase the incidence of mammary nodules, benign and malignant, in dogs. In humans, three case control studies have reported an increased risk of endometrial carcinoma associated with the prolonged use of exogenous estrogen in postmenopausal women. One publication reported on the first 21 cases submitted by physicians to a registry of cases of adenocarcinoma of the endometrium in women under 40 on oral contraceptives. Of the cases found in women without predisposing risk factors for adenocarcinoma of the endometrium (e.g., irregular bleeding at the time oral contraceptives were first given, polycystic ovaries), nearly all occurred in women who had used a sequential oral contraceptive. These products are no longer marketed. No evidence has been reported suggesting an increased risk of endometrial cancer in users of conventional combination or progestogen-only oral contraceptives. Several studies have found no increases in breast cancer in women taking oral contraceptives or estrogens. One study, however, while also noting no overall increased risk of breast cancer in women treated with oral contraceptives, found an excess risk in the subgroups of oral contraceptive users with documented benign breast disease. A reduced occurrence of benign breast tumors in users of oral contraceptives has been well-documented. In summary, there is at present no confirmed evidence from human studies of an increased risk of cancer associated with oral contraceptives. Close clinical surveillance of all women taking oral contraceptives is, nevertheless, essential. In all cases of undiagnosed persistent or recurrent abnormal vaginal bleeding, appropriate diagnostic measures should be taken to rule out malignancy. Women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease or abnormal mammograms should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception.

Figure 1. Estimated annual number of deaths associated with control of fertility and no control per 100,000 nonsterile women, by regimen of control and age of woman.

	15-19	20-24	25-29	30-34	35-39	40-44
No method	5.5	5.2	7.1	14.0	19.3	21.9
Abortion only	2.3	2.5	2.5	5.2	9.8	6.6
Pill only-nonsmokers	1.3	1.4	1.4	2.2	4.5	3.1
Pill only-smokers	1.5	1.6	1.6	10.8	13.4	58.9
IUDs only	1.1	1.2	1.2	1.4	1.6	1.4
Traditional contraception only	1.1	1.4	1.9	3.7	4.7	4.0
Traditional contraception and abortion	0.3	0.4	0.4	0.8	1.4	0.8

4. HEPATIC TUMORS. Benign hepatic adenomas have been found to be associated with the use of oral contraceptives. One study showed that oral contraceptive formulations with high hormonal potency were associated with a higher risk than lower potency formulations. Although benign, hepatic adenomas may rupture and may cause death through intra-abdominal hemorrhage. This has been reported in short-term as well as long-term users of oral contraceptives. Two studies relate risk with duration of use of the contraceptive, the risk being much greater after four or more years of oral contraceptive use. While hepatic adenoma is a rare lesion, it should be considered in women presenting abdominal pain and tenderness, abdominal mass or shock. A few cases of hepatocellular carcinoma have been reported in women taking oral contraceptives. The relationship of these drugs to this type of malignancy is not known at this time. 5. USE IN OR IMMEDIATELY PRECEDING PREGNANCY, BIRTH DEFECTS IN OFFSPRING, AND MALIGNANCY IN FEMALE OFFSPRING. The use of female sex hormones—both estrogenic and progestational agents—during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated to be on the order of 1 to 4 in 1000 exposures. Although there is no evidence at the present time that oral contraceptives further enhance the risk of developing this type of malignancy, such patients should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception. Furthermore, a high percentage of such exposed women (from 30 to 90%) have been found to have epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether this condition is a precursor of vaginal malignancy. Male children so exposed may develop abnormalities of the urogenital tract. Although similar data are not available with the use of other estrogens, it cannot be presumed that they would not induce similar changes. An increased risk of congenital anomalies, including heart defects and limb defects, has been reported with the use of sex hormones, including oral contraceptives, in pregnancy. One case control study has estimated a 4.7-fold increase in risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormonal withdrawal tests for pregnancy or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than one in 1,000 live births. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestogens are effective for these uses. There is some evidence that triploidy and possibly other types of polyploidy are increased among abortuses from women who become pregnant soon after ceasing oral contraceptives. Embryos with these anomalies are virtually always aborted spontaneously. Whether there is an overall increase in spontaneous abortion of pregnancies conceived soon after stopping oral contraceptives is unknown. Pregnancy should be ruled out before initiating or continuing the contraceptive regimen. Pregnancy should always be considered if withdrawal bleeding does not occur. If pregnancy is confirmed, the patient should be apprised of the potential risks to the fetus and the advisability of continuation of the pregnancy should be discussed in the light of these risks. It is also recommended that women who discontinue oral contraceptives with the intent of becoming pregnant use an alternate form of contraception for a period of time before attempting to conceive. Many clinicians recommend three months although no precise information is available on which to base this recommendation. The administration of progestogen-only or progestogen-estrogen combinations to induce withdrawal bleeding should not be used as a test of pregnancy. 6. GALLBLADDER DISEASE. Studies report an increased risk of surgically confirmed gallbladder disease in users of oral contraceptives and estrogens. In one study, an increased risk appeared after two years of use and doubled after four or five years of use. In one of the other studies, an increased risk was apparent between six and twelve months of use. 7. CARBOHYDRATE AND LIPID METABOLIC EFFECTS. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. For this reason, prediabetic and diabetic patients should be carefully observed while receiving oral contraceptives. An increase in triglycerides and total phospholipids has been observed in patients receiving oral contraceptives. 8. ELEVATED BLOOD PRESSURE. An increase in blood pressure has been reported in patients receiving oral contraceptives. In some women hypertension may occur within a few months of beginning oral contraceptive use. In the first year of use, the prevalence of women with hypertension is low in users and may be no higher than that of a comparable group of nonusers. The prevalence in users increases, however, with longer exposure, and in the fifth year of use is two and a half to three times the reported prevalence in the first year. Age is also strongly correlated with the development of hypertension in oral contraceptive users. Women who previously have had hypertension during pregnancy may be more likely to develop elevation of blood pressure when given oral contraceptives. Hypertension that develops as a result of taking oral contraceptives usually returns to normal after discontinuing the drug. 9. HEADACHE. The onset or exacerbation of migraine or development of headache of a new pattern which is recurrent, persistent, or severe, requires discontinuation of oral contraceptives and evaluation of the cause. 10. BLEEDING IRREGULARITIES. Breakthrough bleeding, spotting, and amenorrhea are frequent reasons for patients discontinuing oral contraceptives. In breakthrough bleeding, as in all cases of irregular bleeding from the vagina, nonfunctional causes should be borne in mind. In undiagnosed persistent or recurrent abnormal bleeding from the vagina, adequate diagnostic measures are indicated to rule out pregnancy or malignancy. If pathology has been excluded, time or a change to another formulation may solve the problem. Changing to an oral contraceptive with a higher estrogen content, while potentially useful in minimizing menstrual irregularity, should be done only if necessary since this may increase the risk of thromboembolic disease. Women with a past history of oligomenorrhea or secondary amenorrhea or young women without regular cycles may have a tendency to remain anovulatory or to become amenorrheic after discontinuation of oral contraceptives. Women with these preexisting problems should be advised of this possibility and encouraged to use other contraceptive methods. Postuse anovulation, possibly prolonged, may also occur in women without previous irregularities. 11. ECTOPIC PREGNANCY. Ectopic as well as intrauterine pregnancy may occur in contraceptive failures. 12. BREAST FEEDING. Oral contraceptives given in the postpartum period may interfere with lactation. There may be a decrease in the quantity and quality of the breast milk. Furthermore, a small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The effects, if any, on the breast-fed child have not been determined. If feasible, the use of oral contraceptives should be deferred until the infant has been weaned. **PRECAUTIONS: General:** 1. A complete medical and family history should be taken prior to the initiation of oral contraceptives. The pretreatment and periodic physical examinations should include special reference to blood pressure, breasts, abdomen and pelvic organs, including Papanicolaou smear and relevant laboratory tests. As a general rule, oral contraceptives should not be prescribed for longer than one year without another physical examination being performed. 2. Under the influence of estrogen-progestogen preparations, preexisting uterine leiomyomata may increase in size. 3. Patients with a history of psychic depression should be carefully observed and the drug discontinued if depression recurs to a serious degree. Patients becoming significantly depressed while taking oral contraceptives should stop the medication and use an alternate method of contraception in an attempt to determine whether the symptom is drug-related. 4. Oral contraceptives may cause some degree of fluid retention. They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention, such as convulsive disorders, migraine syndrome, asthma, or cardiac or renal insufficiency. 5. Patients with a past history of jaundice during pregnancy have an increased risk of recurrence of jaundice while receiving oral contraceptive therapy. If jaundice develops in any patient receiving such drugs, the medication should be discontinued. 6. Steroid hormones may be poorly metabolized in patients with impaired liver function and should be administered with caution in such patients. 7. Oral contraceptive users may have disturbances in normal tryptophan metabolism which may result in a relative pyridoxine deficiency. 8. Serum folate levels may be depressed by oral contraceptive therapy. Since the pregnant woman is predisposed to the development of folate deficiency and the incidence of folate deficiency increases with increasing gestation, it is possible that if a woman becomes pregnant shortly after stopping oral contraceptives, she may have a greater chance of developing folate deficiency and complications attributed to this deficiency. 9. The pathologist should be advised of oral contraceptive therapy when relevant specimens are submitted. 10. Certain endocrine and liver function tests and blood components may be affected by estrogen-containing oral contraceptives: a. Increased sulfobromophthalein retention. b. Increased prothrombin and factors VII, VIII, IX, and X; decreased antithrombin 3; increased norepinephrine-induced platelet aggregability. c. Increased thyroid-binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by protein-bound iodine (PBI), T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG, free T4 concentration is unaltered. d. Decreased pregnanediol excretion. e. Reduced response to metyrapone test. **INFORMATION FOR THE PATIENT:** (See Patient Package Insert). **DRUG INTERACTIONS:** Reduced efficacy and increased incidence of breakthrough bleeding have been associated with concomitant use of rifampin. A similar association has been suggested with barbiturates, phenylbutazone, phenytoin sodium, and ampicillin. **CARCINOGENESIS, PREGNANCY, NURSING MOTHERS:** See CONTRAINDICATIONS and WARNINGS. **ADVERSE REACTIONS:** An increased risk of the following serious adverse reactions has been associated with the use of oral contraceptives (see WARNINGS): Thrombophlebitis. Pulmonary embolism. Coronary thrombosis. Cerebral thrombosis. Cerebral hemorrhage. Hypertension. Gallbladder disease. Liver tumors. Congenital anomalies. There is evidence of an association between the following conditions and the use of oral contraceptives, although additional confirmatory studies are needed: Mesenteric thrombosis. Neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis. The following adverse reactions have been reported in patients receiving oral contraceptives and are believed to be drug-related: Nausea, usually the most common adverse reaction. Vomiting, occurs in approximately 10% or less of patients during the first cycle. Other reactions, as a general rule, are seen much less frequently or only occasionally. Gastrointestinal symptoms (such as abdominal cramps and bloating). Breakthrough bleeding. Spotting. Change in menstrual flow. Dysmenorrhea. Amenorrhea during and after treatment. Temporary infertility after discontinuance of treatment. Edema. Chloasma or melasma which may persist. Breast changes: tenderness, enlargement, and secretion. Change in weight (increase or decrease). Change in cervical erosion and cervical secretion. Possible diminution in lactation when given immediately postpartum. Cholestatic jaundice. Migraine. Increase in size of uterine leiomyomata. Rash (allergic). Mental depression. Reduced tolerance to carbohydrates. Vaginal candidiasis. Change in corneal curvature (steepening). Intolerance to contact lenses. The following adverse reactions have been reported in users of oral contraceptives, and the association has been neither confirmed nor refuted: Premenstrual-like syndrome. Cataracts. Changes in libido. Chorea. Changes in appetite. Cystitis-like syndrome. Headache. Nervousness. Dizziness. Hirsutism. Loss of scalp hair. Erythema multiforme. Erythema nodosum. Hemorrhagic eruption. Vaginitis. Porphyria. Impaired renal function. (ORTHO-NOVUM 1/50□21 and ORTHO-NOVUM 1/50□28 contain tartrazine. Allergic reactions have been reported with the ingestion of this dye in some patients.) **ACUTE OVERDOSE:** Serious ill effects have not been reported following acute ingestion of large doses of oral contraceptives by young children. Overdosage may cause nausea, and withdrawal bleeding may occur in females.

*Trademark

Ortho Pharmaceutical Corporation • Raritan, N.J. 08869

This asthmatic isn't worried about his next breath...

he's active he's effectively maintained on

QUIBRON®

Each capsule or tablespoon (15 ml) elixir contains theophylline (anhydrous) 150 mg and glyceryl guaiacolate (guaifenesin) 90 mg. Elixir: alcohol 15%

- theophylline for effective around-the-clock bronchodilator therapy
- 100% free theophylline

Indications: For the symptomatic relief of bronchospastic conditions such as bronchial asthma, chronic bronchitis, and pulmonary emphysema.
Warnings: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other compounds containing xanthine derivatives concurrently.
Precautions: Use with caution in patients with cardiac disease, hepatic or renal impairment. Concurrent administration with certain antibiotics, i.e. clindomycin, erythromycin, troleandomycin, may result in higher serum levels of theophylline. Plasma prothrombin and factor V may increase, but any clinical effect is likely to be small. Metabolites of guaifenesin may contribute to increased urinary 5-hydroxyindoleacetic acid readings, when determined with nitrosonaphtol reagent. Safe use in pregnancy has not been established. Use in case of pregnancy only when clearly needed.
Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 μg/ml.
How Supplied: Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.
See package insert for complete prescribing information.

Mead Johnson PHARMACEUTICAL DIVISION

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The Great Laxative Escape

COLACE®

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Colace means escape—from laxative stimulation, from laxative harshness, from laxative habit. Colace gently helps soften stools for easy, painless, unstrained elimination. It's the great laxative escape, from infancy to old age. Available in 100 and 50 mg. capsules. Syrup or liquid.

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PHARMACEUTICAL DIVISION

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MEDICAL NEWSMAKERS

A. BRYAN SPIRES, JR, MD, Austin, is the new president of the American Heart Association, Texas Affiliate, Inc. Dr Spires is secretary-treasurer of the Texas State Board of Medical Examiners and a consultant to the TMA Council on Medical Education and Hospitals.

C. E. BARRERA, MD, McAllen, and RAYMOND COHEN, MD, Houston, have been reappointed to serve three-year terms on the Medical Care Advisory Committee of the Texas Department of Human Resources.

DONALD R. KLEIN, MD, Dallas, has been reelected secretary of the American Society for Aesthetic Plastic Surgery.

JACKIE MOSS, RN, Austin, has been elected president of the American Association of Medical Assistants, Inc, State of Texas. Other officers are CLAIRE GAYLIN, Tyler, first vice-president; RITA PARIS, LVN, RT CMA AC, Fort Worth, second vice-president; FAYE GIBSON, Lubbock, president-elect; PAT WETHERBEE, CMA AC Ped, College Station, treasurer; BONNIE CORMACK, CMA AC, Houston, secretary; MILDRED BANKS, Austin, speaker of the house; and MICKI ALLEN, CMA A, Lubbock, vice-speaker. Ms Moss is employed by Paul C. Trickett, MD. Other officers and physicians they work with include Claire Gaylin; Charles A. Primer, MD; Rita Paris; Walford D. Marrs, MD: Faye Gibson; Tracy D. Gage, MD; Francis Jackson, MD; Bonnie Cormack; M. W. Gallagher, MD; Pat Wetherbee; L. W. Coleman, Jr., MD; Mildred Banks; Mathis W. Blackstock, MD; Miki Allen; Craig Donald, MD; and Bill H. Wilson, MD.

HARVEY RENGER, MD, Hallettsville, is the new president of The Conference of Presidents and Other Officers of State Medical Associations. Dr Renger, a past president of Texas Medical Association, is a Texas delegate to the American Medical Association.

J. B. HOWELL, MD, Dallas, has been elected vice-president of the American Dermatological Association and president of the Texas Dermatological Society.

ALVIN L. LEBLANC, MD, Galveston, has been appointed to serve on the AMA Advisory Committee on Graduate Medical Education; and PHIL KURZNER, a Baylor medical student, has been named a delegate to serve on the 1978–1979 AMA Student Business Section Governing Council.

ROBERTO J. BAYARDO, MD, is the new Travis County Medical Examiner. Dr Bayardo, a member of Texas Medical Association, is the former deputy chief medical examiner for Harris County.

A. Bryan Spires, MD

Robert J. Bayardo, MD

CAPITAL COMMENTS

Editor's Note: "Capital Comments" highlights current items of interest relating to health matters in the US Congress, federal agencies, state legislatures, and Texas administrative agencies.

AUSTIN TEXAS LEGISLATURE The Texas Legislature will begin Jan 9, 1979, and continue through May 28, 1979. Bills may be prefiled beginning in November 1978.

WASHINGTON BALANCED BUDGET Houston Congressman Bill Archer has gained 66 cosigners on his effort to initiate congressional action on a proposed constitutional amendment requiring a balanced annual federal budget. "There has never been a better time for the Congress to take a long hard look at the idea of forcing the federal government to operate under a balanced budget each year," Archer said.

AUSTIN LICENSE PROBATION Texas Attorney General John Hill issued an opinion to the Texas Board of Nurse Examiners regarding whether the board may probate a revocation or suspension of a nurse's license. The opinion stated that an administrative agency may exercise only those powers which are expressly granted to it by statute, together with those necessarily implied. The opinion pointed out that a number of other boards are specifically empowered to probate or order revoking or suspending a practitioner's license. According to the opinion, the absence of any such express authority from the Nurse Practice Act indicates a legislative intent that probation is not an alternative which is currently available to the Board of Nurse Examiners. Accordingly, the Board of Nurse Examiners may not probate a revocation or suspension of a nurse's license.

WASHINGTON HEALTH SYSTEMS AGENCIES HEW issued proposed regulations to clarify requirements for the composition of governing boards of Health System Agencies (HSA) in July. The proposed regulations deal with statutory requirements that a majority of the HSA governing board members must be consumers of health care "broadly representative of the social, economic, linguistic and racial populations, geographic areas of the health service area, and major purchasers of health care." Under the proposed regulations, a majority but not more than 60% of the governing board would be consumers with representation from identifiable racial or linguistic groups constituting a significant portion of population, all economic groups including poor and low income groups, women, and persons over 65. An individual, according to the regulations, does not have to be a member of a particular group to be considered a representative of that group. However, no individual who is not a member of a population group may be considered a representative of that group unless the individual has been selected or nominated for that purpose by an organization composed primarily of members of that group.

AUSTIN VENDOR DRUG PROGRAM Two studies of the Texas vendor drug program comparing performance of Medicaid drug programs of Texas and California reveal that the Texas program demonstrates superior control of growth in expenditures, utilization, and prices. The studies, "A Comparative Analysis of Public and Recipient Attitudes Toward the Medicaid Program in Texas and California," by Lewis Harris & Associates Inc and "Comparative Growth Analysis of Medicaid Drug Programs, Texas v California, the Top 200 Drugs," by Baldwin E. Kloier, indicate wider public support for the Texas Medicaid program and offer significant contrasts between the two approaches to government-financed health care. The studies contrast the Texas program with emphasis on management of utilization and limitation of fraud with the California program which concentrates on omitting choices of drugs and controlling ingredient prices. The market-oriented Texas program demonstrated superior control of price growth and is especially interesting since California's management emphasis is directed at price control by limitation. The number of recipients grew more rapidly in Texas than in California. However, since federally audited measures of recipient fraud and ineligibility in Texas are among the lowest in the nation, this growth is almost entirely an expression of public policy to increase welfare coverage, both cash grant and Medicaid. Does the knowledge that utilization management techniques like those employed in the Texas Medicaid program involve systematic monitoring of drug consumption by the program recipients, provoke recipient discontent? The recently released Harris opinion poll of Medicaid and non-Medicaid populations of both Texas and California confirms that there is more public support for the total Medicaid program in Texas, and that the recipients and taxpayers of both states are equally pleased with their respective Medicaid drug programs. Therefore, the Harris poll results indicate that more effective management with reduced bureaucratic hassle for providers, suppliers, and recipients can be politically popular.

WASHINGTON ELECTION FINE President Carter's 1976 campaign committee and the National Bank of Georgia will pay $6,200 in fines for illegal use of the bank's aircraft by candidate Carter and Robert Strauss, chairman of the Democratic National Committee in 1975 and 1976. The Carter committee's problems stem not from the use of the corporate airplane, but from failure to pay the bank the value of the flights as required by Federal Election Commission regulations. The bank's violation occurred when it failed to bill the committee as required by law.

MARYLAND NURSE MIDWIVES A 1978 Maryland statute provides that after July 1, 1979, all health insurers in the state must offer the option of benefits for expenses from services rendered by a certified nurse midwife. Whenever a policy provides reimbursement for services within the lawful scope of practice of a certified nurse midwife, reimbursement shall be made whether the services are provided by a physician or by a nurse midwife. Policies may not require that as a condition of receiving benefits a nurse midwife be employed by a physician or act pursuant to a physician's orders. The statute also authorizes Medicaid to cover services rendered by a certified nurse midwife. The services do not have to be rendered under the supervision of a physician to be eligible for Medicaid reimbursement.

NORTH CAROLINA PHYSICIAN ASSISTANTS A 1978 North Carolina statute defines circumstances where physician assistants and nurse practitioners can prescribe, compound and dispense drugs. Physician assistants are authorized to write prescriptions if the Board of Medical Examiners has adopted regulations governing the approval of individual physician assistants to prescribe, the physician assistant has been approved by the board, the board has given the physician assistant an identification number that appears on the written prescription, and the supervising physician has given the physician assistant written instructions on indications and contraindications for prescribing drugs and a written policy for periodic review by the physician. Nurse practitioners may prescribe under similar circumstances, except that the Board of Medical Examiners and the Board of Nurses shall jointly promulgate regulations governing nurse practitioner prescriptions. Any prescription written by a physician assistant or nurse practitioner shall be deemed to have been authorized by the physician approved by the board as a supervisor of the physician assistant or the nurse practitioner who shall be responsible for such prescription.

WASHINGTON HARRIS POLL A large majority of Americans sampled in a nationwide poll say that they are willing to pay more for better health care, but that recent increases in doctor and hospital fees are not buying such improvements. Even so, a majority of those sampled expressed general satisfaction with the quality of health care, and a plurality said they oppose greater government regulation. The survey, conducted by researcher Lewis Harris, involved one-hour personal interviews with 1,503 adult Americans selected to represent all Americans, to get their answers to more than 200 questions. According to the researcher, a dual perception, embracing both satisfaction with health care now delivered and a strong feeling that doctors and hospitals are charging more than the care was worth, led 70% of the sampled to agree that "the health care system is out of control and needs to be changed." Four out of five sampled believe that spending more money for preventive medicine and health education would, in the long run, save money. Some 41% said at least 40% of health spending should be devoted to prevention. Prevention now takes an estimated 1% of health spending. Eighty-five percent of those sampled said they believed doctors' assistants could take over some minor procedures, now generally restricted to doctors, without damaging the quality of health care.

WASHINGTON CONGRESSIONAL TURNOVER The 95th Congress has achieved a dubious record for voluntary retirements from Congress. Fifty-eight members, 49 House members, and nine Senators will not seek reelection in November. The old record was 56 who retired at the end of the 94th Congress. In addition to the 58 congressional members not seeking reelection, 15 congressmen have died in office, resigned during their term, or been defeated in primaries resulting in a total of 73 congressmen who will not be running for their present seats in November. The number of freshmen in the upcoming 96th Congress assuredly will set a record. The total will be added to the 103 freshmen members of the 94th Congress and the 79 new members of the 95th Congress, insuring that in 1979, virtually half of the House and Senate members will have less than five years' experience in office.

Tenuate® ⒸⅣ
(diethylpropion hydrochloride NF)

Tenuate Dospan®
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION
Brief Summary
INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.
CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).
WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.
PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.
ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.
DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.
OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633
Direct Medical Inquiries to:
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®

References: 1. Citations available on request—Medical Research Department, MERRELL RESEARCH CENTER, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon, R.H., and Leyland, H.M.: A Comprehensive Review of Diethylpropion Hydrochloride. International Symposium on Central Mechanisms of Anorectic Drugs, Florence, Italy, Jan. 20-21, 1977.

Merrell

8-3921 (Y587A)

Whether overweight is a complicating factor... or just uncomplicated overweight.

Tenuate® Dospan® ©IV

(diethylpropion hydrochloride NF)

75 mg. controlled-release tablets

A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with hypertension, symptomatic cardiovascular disease, or diabetes. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. (Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.)

In uncomplicated obesity.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorexic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorexic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate—it makes sense. And it's responsible medicine.

Merrell

For prescribing information see opposite page.

Tagamet®
brand of
cimetidine
How Supplied: Pale green, 300 mg. tablets in bottles of 100 and Single Unit Packages of 100 (intended for institutional use only).
Injection, 300 mg./2 ml., in single-dose vials in packages of 10.
SK&F LAB CO.
a SmithKline company

MARY CARTER AGREEMENTS AND DISCLOSURE BY DRUG MANUFACTURERS

The Texas Supreme Court has ruled that Mary Carter agreements can be used to show bias or motive by a settling defendant who remains involved in a suit. A Mary Carter agreement is a private agreement which constitutes settlement of a dispute between a plaintiff and one of two or more defendants. The court has also ruled that drug manufacturers must disclose possible dangers inherent in the use of specific medicine, and that FDA approval of published warnings does not abrogate the manufacturer's responsibility.

Facts

On Nov 22, 1970, the plaintiff, then 25 years old, was hospitalized because of pain in his left hip and knee.

After tests, the orthopedist diagnosed an infection in the plaintiff's hip. On Dec 20, the physician started treating the infection with Kantrex tablets (kanamycin sulfate), and on Dec 22, he changed the medication to Kantrex via intramuscular injections. Between Dec 22 and Jan 5, 1971, 20.5 gm of Kantrex were administered intramuscularly.

The physician performed surgery on the patient's infected hip Dec 23. Between Dec 23 and Jan 4, 1971, the wound was subjected to continuous irrigation or washing with alternating solutions of Bristol-Myers' Kantrex and Upjohn's Mycifradin (neomycin sulfate). Both drugs were known to be ototoxic. The mechanical way in which each drug effects hearing damage to the eighth cranial nerve is the same.

It was not disputed that some portion of the Kantrex and Mycifradin used in the irrigation was absorbed in the blood and that the cumulative effect of all the oxotoxic drugs in the blood, the unknown amount of absorbed Kantrex and Mycifradin plus the injected Kantrex, resulted in the patient's total, irreversible, bilateral deafness. The literature the physician consulted on the use of Kantrex at treatment time was Bristol-Myers' insert for Kantrex injection in the 1970 *Physicians' Desk Reference*.

The patient filed suit against Bristol-Myers Co, Upjohn, and the orthopedist. The liability of Bristol-Myers and Upjohn was claimed to be based on their failure to provide a physician with adequate warnings and instructions for the safe use of their drugs, and also on affirmative misrepresentation of the use of drugs under theories of negligence and strict products liability. The suit against the orthopedist was for negligence in his treatment of the patient with the drugs.

Before the trial, the plaintiff settled his claim against the orthopedist for $100,000 and took a nonsuit against the orthopedist and Upjohn. Bristol-Myers denied the patient's claim and filed a cross-action alleging the physician had misused the drug; the company also requested indemnity or contribution from the physician. The physician, in turn, filed a third-party complaint against Bristol-Myers for misrepresentation and inadequate warnings regarding use of its drug, and requested indemnity and contribution from the company.

The jury found: (1) that in the 1970 *Physicians' Desk Reference* Bristol-Myers provided inadequate warnings or instructions (as defined in the charge of the court) for the use of Kantrex; (2) that such failure caused the patient's deafness; (3) that the statement "Kantrex injections in concentrations of 0.25% in abscess cavities" reasonably implied that the physician could use the drug safely in such concentration for irrigation; (4) that the physician relied on that statement; (5) that the statement was false; (6) that reliance on that statement caused the patient's deafness; (7) that the physician failed to use ordinary care, as defined by the court, in treating the patient; (8) that such failure was a proximate cause of the plaintiff's deafness; and (9) that the plaintiff's damages for loss of hearing were $800,000.

The Texas Court of Civil Appeals upheld the judgment of the trial court but reduced the award to $400,000.[1]

Bristol-Myers appealed the case, claiming to the Supreme Court that: (1) there was insufficient evidence to conclude that Bristol-Myers had failed to give adequate warning, and (2) the trial court erred by excluding evidence concerning the patient-physician settlement in which the physician was assured $100,000 from any recovery against Bristol-Myers. Such an agreement commonly is known as a "Mary Carter" agreement.

The Supreme Court of Texas reversed the trial court and Court of Civil Appeals and sent the case back for a new trial.[2]

Discussion

In its discussion of the case, the Texas Supreme Court cited testimony by nine experts, including Bristol-Myers associates, supporting jury findings that Bristol-Myers had provided insufficient warnings about Kantrex.

The court stated that "if a manufacturer knows or

should know of potential harm to a user because of the nature of his products, the manufacturer is required to give an adequate warning of such danger."

The court agreed that FDA approval of the package insert published in the 1970 *Physicians' Desk Reference* did not relieve Bristol-Myers of its obligation to communicate an adequate warning to the users of the drug. That the approved insert did not fully reveal the drug's potential dangers was known by Bristol-Myers long before government officials learned of the discrepancy, the court stated, adding that the package insert must be changed to include appropriate instructions and warnings.

The court, however, upheld Bristol-Myers' contention that the trial court erred by excluding from evidence the Mary Carter agreement between the physician and patient, and termed the exclusion a denial of Bristol-Myers' right to question the physician's credibility as a witness. That denial, the justices ruled, probably resulted in an improper judgment in the lower court. The agreement provided that the patient agreed to repay the $100,000 to the physicians or to those persons making the payment on his behalf (Aetna Casualty) out of any recovery against Bristol-Myers.

A Mary Carter agreement is a private agreement which constitutes settlement of a dispute between a plaintiff and one of two or more defendants. The defendant who settled remains a party in the trial. The agreement grants the defendants who settled a financial interest in the plaintiff's recovery against the other defendants. Mary Carter agreements may be designed based on factual settings, the individual case, and laws in a jurisdiction. Texas courts have stated that settlement agreements between a plaintiff and a codefendant normally should be excluded from the jury. However, where one party has a financial interest and is a witness, it is a proper subject of disclosure by direct evidence or cross-examination.

In many cases, knowledge of out-of-court, plaintiff-defendant agreements is withheld from courtroom evidence, but financial agreements that could bias testimony often are disclosed in court. Although some courts have invalidated such contracts, most that have considered the subject allow disclosure.

Conclusion

The Texas Supreme Court ruled that drug manufacturers have a duty to disclose possible dangers inherent in the use of specific medicine, and that FDA approval of published warnings does not abrogate the manufacturer's responsibility.

In cases where a defendant settles with a plaintiff and retains a financial interest in the outcome of the suit, the settling defendant may be cross-examined about the agreement to show potential interest, bias, or motive.

Ace Pickens
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

1. *Bristol-Myers Company v Gonzales, et al*, 548 SW2d 416 (Tex Civ App 1977).
2. *Bristol-Myers Company v. Gonzales, et al*, No. B-6707 (21 Tex Sup Ct Jr 179, Feb, 1978).

Brief Summary of Prescribing Information

Actions: Pyrvinium pamoate appears to exert its anthelmintic effect by preventing the parasite from using exogenous carbohydrates. The parasite's endogenous reserves are depleted, and it dies. Povan is not appreciably absorbed from the gastrointestinal tract.

Indication: Povan is indicated for the treatment of enterobiasis.

Warnings: No animal or human reproduction studies have been performed. Therefore, the use of this drug during pregnancy requires that the potential benefits be weighed against its possible hazards to the mother and fetus.

Precautions: To forestall undue concern and help avoid accidental staining, patients and parents should be advised of the staining properties of Povan. Care should be exercised not to spill the suspension because it will stain most materials. Tablets should be swallowed whole to avoid staining of teeth. Parents and patients should be informed that pyrvinium pamoate will color the stool a bright red. This is not harmful to the patient. If emesis occurs, the vomitus will probably be colored red and will stain most materials.

Adverse Reactions: Nausea, vomiting, cramping, diarrhea, and hypersensitivity reactions (photosensitization and other allergic reactions) have been reported. The gastrointestinal reactions occur more often in older children and adults who have received large doses. Emesis is more frequently seen with Povan Suspension than with Povan Filmseals.

How Supplied: Each Povan Filmseal® contains pyrvinium pamoate equivalent to 50 mg pyrvinium, supplied in bottles of 50 (NDC 0710-0747-50; NSN 6505-00-134-1966). Povan Suspension, a pleasant-tasting, strawberry-flavored preparation containing pyrvinium pamoate equivalent to 10 mg pyrvinium per milliliter, is supplied in 2-oz bottles (NDC 0071-1254-31; NSN 6505-00-890-1093).

RC/RD PD-JA-1699-2-P (8-76)

Parke, Davis & Company
Detroit, Michigan 48232

When it's pinworms, treat the family

Povan® (pyrvinium pamoate)

- over 17 years of proved clinical effectiveness and safety
- no measurable absorption from the GI tract—minimal systemic side effects
- one dose—one time—that's all that's usually required
- two dosage forms: Tablets and Suspension—suitable for the entire family

Povan—there's a form for every member of the family.

PARKE-DAVIS

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**Member, Texas Medical Association*

In the Film Library

Intrapartum Fetal Monitoring, slide presentation by Barden TP, produced by the American College of Obstetricians and Gynecologists, Chicago, 1977.
Illustrates rationale for continuous fetal heart rate monitoring during labor, identifies the pathophysiologic effects of labor upon the fetus, and contrasts current instrumentation for intrapartum monitoring. Defines the standard terminology of fetal heart rate monitoring, and compares the treatment of fetal distress diagnosed by fetal heart rate patterns and fetal pH determinations.

Bacterial Infections, slide presentation by Ledger WJ, produced by the American College of Obstetricians and Gynecologists, Chicago, 1977.
Categorizes the clinical bases of microbiologic infections in obstetric and gynecologic patients, describes appropriate tissue and fluid samples to be taken for culture, interprets laboratory findings, and categorizes groups of antibiotics by bacterial susceptibility and toxic effects.

Human Genetics, slide presentation by Stenchever MA, produced by the American College of Obstetricians and Gynecologists, Chicago, 1977.
Differentiates the various types of hereditary problems in diseases. Describes the value of genetic diagnostic tools. Lists the values of genetic counseling. Lists diseases representative of various types of errors of inheritance and describes the prerequisites, indications, and complications of prenatal diagnosis.

Emergency Child Aid, film by Southwest Educational Development Laboratory, Austin, Tex, The Laboratory, 1978.
Designed to show adults and high school students how to deal with child and infant emergencies before qualified help arrives. Discusses proper methods for dealing with airway obstruction, broken bones, bleeding, poisoning, and burns.

AMERICAN COLLEGE OF SURGEONS. The 64th annual Clinical Congress sponsored by the American College of Surgeons will be held in San Francisco Oct 16–20, 1978. The Clinical Congress program will include postgraduate courses on a wide range of subjects, a forum on fundamental surgical problems, panel discussions and symposia on general surgery and other surgical specialties, numerous film programs, a summary of "What's New in Surgery?", as well as major addresses by prominent guest lecturers. As an organization accredited for continuing medical education, the American College of Surgeons certifies that this continuing medical education offering meets the criteria for hour-for-hour credit in Category 1 of the AMA Physician's Recognition Award. Contact: C. Rollins Hanlon, MD, 55 E Erie St, Chicago 60611.

AMERICAN COLLEGE OF CHEST PHYSICIANS. The 44th Annual Scientific Assembly of the American College of Chest Physicians will be held in the nation's capital at the Washington Hilton Hotel Oct 29–Nov. 2, 1978. The scientific program includes five days of intense continuing medical education sessions for physicians and surgeons who diagnose and treat chest diseases. Subjects to be discussed in the eight major symposia presented during the scientific assembly are: "Pulmonary Circulation in Health and Disease," "Noninvasive Cardiology," "Monitoring the Critically Ill Patient," and "Mechanisms of Acute Lung Injury-ARDS." Other program features include luncheon panels, evening seminars, fireside conferences/controversies, sunrise sessions, motion picture clinics, and technical and scientific exhibits. The American College of Chest Physicians certifies that this program meets the criteria for 30 credit hours in Category 1 of the AMA Physician's Recognition Award. Contact: Dale E. Braddy, MS, Director of Education, American College of Chest Physicians, 911 Busse Highway, Park Ridge, IL 60068.

AMERICAN GROUP PRACTICE ASSOCIATION. The 29th Annual Meeting of the American Group Practice Association will be held at the New Orleans Marriott Hotel Oct 25–28, 1978. The four-day program will include two concurrent open forums, one on the delivery of occupational health services and the other on various aspects of prepayment; a critical review of foreign health systems, featuring reports from Great Britain, Canada, and Australia; an appraisal of domestic legislative pro-

posals on national health insurance; and numerous workshops in such areas as cost containment, continuing education, and satellite clinics. Contact: Wilton A. Doane, MD, Program Chairman, AGPA, 20 S Quaker Lane, Alexandria, VA 22314.

CALENDAR OF LISTINGS

■Denotes Texas Meetings

OCTOBER

AMERICAN ACADEMY OF PEDIATRICS, Chicago, Oct 21–26, 1978. Robert Frazier, 1801 Hinman, Evanston, IL 60204.

AMERICAN COLLEGE OF ALLERGISTS, 2nd Intl Symposium on Food Allergy, Mexico City, Oct 16–20, 1978. Frances P White, 2141 14th St, Boulder, CO 80302.

AMERICAN COLLEGE OF CHEST PHYSICIANS, Washington, DC, Oct 29–Nov 2, 1978. Alfred Soffer, MD, 911 Busse Highway, Park Ridge, IL 60068.

AMERICAN COLLEGE OF GASTROENTEROLOGY, New Orleans, Oct 23–29, 1978. Daniel Weiss, 299 Broadway, New York 10007.

AMERICAN COLLEGE OF SURGEONS, San Francisco, Oct 16–20, 1978. C Rollins Hanlon, MD, 55 E Erie St, Chicago 60611.

AMERICAN DENTAL ASSOCIATION, Anaheim, Calif, Oct 22–26, 1978. C Gordan Watson, MD, 211 E Chicago, Chicago 60611.

AMERICAN GROUP PRACTICE ASSOCIATION, New Orleans, Oct 25–28, 1978. W Grayburn Davis, MD, 20 S Quaker Lane, Alexander, VA 22314.

AMERICAN INSTITUTE OF ULTRASOUND IN MEDICINE, San Diego, CA, Oct 19–23, 1978. 6161 N May, Oklahoma City 73116.

AMERICAN MEDICAL ASSOCIATION, 2nd Annual Jail Conference, Chicago, Oct 27–28, 1978. 535 N Dearborn St, Chicago 60610

ASSOCIATION OF AMERICAN MEDICAL COLLEGES, New Orleans, Oct 22–26, 1978. John Cooper, MD, 1 Dupont Cir, NW. Washington, DC 20036.

ASSOCIATION OF LIFE INSURANCE MEDICAL DIRECTORS OF AMERICA, Atlanta, Oct 22–24, 1978. Harold S Kost, MD, John Hancock, Boston 02117.

CENTER FOR CHINESE MEDICINE, Los Angeles, Oct 28–29, 1978. Pedro Chan, PhD, 230 S Garfield Ave, Monterey Park, CA 91754.

THE CENTRAL ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS, Kansas City, MO, Oct 13–15, 1978. W B. Goddard, MD, 2020 Wadsworth, Lakewood, CO

■ PANHANDLE DISTRICT MEDICAL SOCIETY, Amarillo, Tex, Oct 21, 1978. Carlie Umphres, Box 3276, Amarillo, Tex 79604.

SOCIETY FOR CLINICAL AND EXPERIMENTAL HYPNOSIS, Asheville, NC, Oct 17–22, 1978. Mrs Marion Kenn, Admin Dir, 129A Kings Park Dr, Liverpool, NY 13088.

■ TEXAS ACADEMY OF FAMILY PHYSICIANS, San Antonio, Oct 15–17, 1978. Donald C Jackson, 1901 N Lamar Blvd, Austin TX 78705

NOVEMBER

AMERICAN ASSOCIATION OF BLOOD BANKS, New Orleans, Nov 4–9, 1978. Ben F Peake, 1828 L St, NW, Washington, DC 20036.

AMERICAN ASSOCIATION FOR CLINICAL IMMUNOLOGY AND ALLERGY, Miami Beach, FL, Nov 12–16, 1978. H. Silber, PO Box 912, Omaha, NE 68101.

AMERICAN ASSOCIATION OF GYNECOLOGICAL LAPAROSCOPISTS, Hollywood, Fla, Nov 16–19, 1978. Jordan M Phillips, MD, 11239 S Lakewood, Downey, Calif 90241.

AMERICAN CANCER SOCIETY, INC, New York, Nov 9–11, 1978. Lane W Adams, 777 Third Ave, New York 10017.

AMERICAN CONGRESS OF REHABILITATION MEDICINE, New Orleans, Nov 12–17, 1978. Creston C Herold, 30 N Michigan Ave, Chicago 60602.

AMERICAN HUMANE ASSOCIATION, Miami, Nov 26–29, 1978. Kathern Bond, 5251 S Roslyn St, Englewood, Colo 80110.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Petersburg Beach, Fla, Nov 8–12, 1978. Lorraine Loesel, 1740 Broadway, New York 10019.

ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES, Washington, DC, Nov 26–30, 1978. RADM Walter Welham, MC, USN Ret, 10605 Concord, Suite 306, Kensington, Md 20795.

AMERICAN SOCIETY OF CYTOLOGY, Miami, Nov 7–11, 1978. WR Lang, MD, Sec, Health Sciences Center, 130 S Ninth St, Suite 1006, Philadelphia 19107.

AMERICAN SOCIETY OF PLASTIC AND RECONSTRUCTIVE SURGEONS, Hollywood, FL, Nov 5–10, 1978. Dallas F Whaley, CAE, 29 E Madison, Chicago 60602.

MEDICAL SOCIETY OF THE US & MEXICO, Guadalajara, Jalisco, Mexico, Nov 15–18, 1978. Carolyn Parsons, 3161 N Pantano Rd, Tucson, Ariz 85715.

NATIONAL FIRE PROTECTION ASSOCIATION, Montreal, Nov 13–15, 1978. Charles S Morgan, 470 Atlantic Ave, Boston 02210.

■ NATIONAL JOINT PRACTICE COMMISSION, Dallas, Nov 9–11, 1978. WB Schaffrath, PhD, Dir, 35 E Wacker Dr, Suite 1990, Chicago 60601.

RADIOLOGICAL SOCIETY OF NORTH AMERICA, Atlanta, Nov 25–30, 1978. One Mony Plaza, Syracuse, NY 13202.

SOUTHERN MEDICAL ASSOCIATION, Georgia World Congress Center, Nov 11–14, 1978. 2601 Highland Ave, Birmingham, Ala 35205.

■ TEXAS MEDICAL ASSOCIATION, House of Delegates, Austin, Tex, Nov 11–12, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin 78701.

DECEMBER

AMERICAN ACADEMY OF DERMATOLOGY, San Francisco, Dec 2–7, 1978. Bradford W Claxton, 820 Davis St, Evanston, Ill 60201.

■ SOUTHWESTERN GYNECOLOGIC ASSEMBLY, Dallas, Dec 7–9, 1978. 3630 Noble Ave, Dallas 75204.

Promote your continuing education programs.

The staff of TEXAS MEDICINE currently is preparing the 1979 Texas Continuing Education Directory for Physicians. The directory will be mailed to all members of the Texas Medical Association in December to assist them in planning their 1979 continuing education schedule.

If your organization will have one or more continuing education programs during the coming year, you will want them listed. This directory will provide greater publicity to all courses which will be offered in Texas and stimulate greater participation in many programs.

Don't miss this opportunity to further promote your continuing education course. Time is limited, so write today for the questionnaire that must be filled out for each listing.

Complete and mail the form below and a questionnaire will be rushed to you. Do it now!

To: Mrs. Marilyn Baker, Executive Editor
TEXAS MEDICINE
1905 North Lamar Blvd., Austin, Texas 78705

Please send me the TMA Continuing Education Course questionnaire in order that my organization may be listed in the 1979 Texas Continuing Education Directory for Physicians.

Name of course _____

Dates _____

Sponsoring Organization _____

Name _____

Address _____

City _____ Zip _____

ALCOHOL ADDICTION: Few excessive drinkers live long enough to die from it.

Throughout the overt and deteriorating stages, the excessive drinker's death rate from accident, heart attack, stroke and other mortal disease is much higher than normal. Nonetheless, excessive drinking is fatal unless arrested.

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"...the State Board of Insurance approved a rate reduction on medical malpractice policies written by the American Physicians Insurance Exchange. The overall statewide decrease in premiums for doctors written by the API averaged 9.72% ranging up to 46.1%. The reductions vary according to a doctor's medical specialty and the area of the state in which the doctor's practice is located.

The API is a Texas physician-owned company that began operations in 1976 and this is the second rate reduction for the company in its two-year history. In 1977 the rates were reduced an average of 15% statewide. Also commenting were Ned Price and Durwood Manford, long-time members of the Board."

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OCTOBER

Emergency Care

Title: UTMB Trauma Conference

Sponsors: Continuing Medical Education, Short Courses, UT Medical Branch, Galveston

Location of course: Galvez Hotel/Motel, 21st & Seawall, Galveston

Date: Oct 11–14, 1978

Duration: Continuous; 2½ days; 8 hours instruction per day; Thursday–Saturday; 8 am–5 pm; 20 total course hours

Fee: $140

Designed for: General practitioners; Specialists in Emergency Care, Surgery, Internal Medicine

Enrollment: Minimum, 60; Maximum, 150

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 20 hours

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Contact: NeKee McNulty, Coordinator, CME-Short Courses, 2nd Floor, Gail Borden Bldg, UT Medical Branch, Galveston 77550

Family Medicine

Title: Advances in Laboratory Medicine

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio

Date: Oct 7–8, 1978

Duration: Continuous; 2 days; Saturday–Sunday

Fee: $75

Designed for: General practitioners; Specialists in Primary Care

Enrollment: Minimum, 20; Maximum, 120

Credit: Category 1, AMA Physician's Recognition Award

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

General Medicine

Title: The Use of Computers in the Practice of Medicine

Sponsors: Texas Tech University School of Medicine, Lubbock

Location of course: Texas Tech Health Sciences Centers, Lubbock

Date: Oct 7, 1978

Duration: Continuous; 1 day; Saturday

Fee: $40

Designed for: General practitioners

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award; 6 hours

Teaching methods: Audiovisual materials, lecture

Contact: Rita Chrane, Ed Prog Asst, Educational Development & Continuing Education, Texas Tech University School of Medicine, Lubbock 79430

Title: Southwest College Health Association Annual Meeting

Sponsors: UT Health Science Center at San Antonio; Southwest College Health Association

Location of course: El Tropicano Hotel, San Antonio

Date: Oct 19–21, 1978

Duration: Continuous; 3 days; Thursday, 1–6 pm, Friday–Saturday, 8am–5 pm

Fee: To be announced

Enrollment: Minimum, 75; Maximum, open

Credit: AAFP; Category 1, AMA Physician's Recognition Award; 4 hours

Teaching Methods: Audiovisual materials, lecture, open question

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

Title: Nutritional Components of Common Clinical Problems—Facts, Controversies, and Fallacies

Sponsors: Division of Continuing Education, Southwestern Medical School, UT Health Science Center; A. Webb Roberts Center for Continuing Education

Location of course: Zale Lecture Hall, UTHSC, Dallas

Date: Oct 26–28, 1978

Duration: Continuous; 3 days; Thursday–Saturday

Designed for: Specialists in Pediatrics, Family Medicine, Internal Medicine, and Psychiatry

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award; 15 hours

Contact: Norma Wilcox, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas 75235 (214) 688-2166

Neurology

Title: Lumbar Disc Disease

Sponsors: Division of Neurological Surgery, Southwestern Medical School, UTHSC at Dallas, Texas Association of Neurological Surgeons

Location of course: Zale Lecture Hall, UTHSC, Dallas

Date: Oct 6–7, 1978

Duration: Continuous; 2 days

Designed for: Specialists in Neurology, Orthopedic Surgery

Credit: AMA Physician's Recognition Award; 6 hours

Contact: Norma Wilcox, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas TX 75235 (214) 688-2166

Obstetrics & Gynecology

Title: What's New and Important in OB-Gyn

Sponsors: Department of Obstetrics & Gynecology, UT Health Science Center at Dallas

Location of course: UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas

Date: Oct 17–21, 1978

Duration: Continuous; 5 days; 40 total course hours

Designed for: Specialists in Obstetrics & Gynecology

Credit: Category 1, AMA Physician's Recognition Award; 40 hours

Teaching Methods: Audiovisual materials, lecture, open question, seminar

Contact: June Bovill, Assistant to Associate Dean for Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Title: Comprehensive Review of Obstetrics & Gynecology

Sponsors: Department of Obstetrics & Gynecology, Baylor College of Medicine

Location of course: Holiday Inn-Medical Center, Houston

Date: Oct 20–25, 1978

Fee: $350

Designed for: Specialists in Obstetrics and Gynecology

Credit: Category 1, AMA Physician's Recognition Award, 34 hours; ACOG, 50 cognate hours

Contact: Fred M. Taylor, Director, Office of Continuing Education, Baylor College of Medicine, Texas Medical Center, Houston 77030

Title: Diseases of the Vulva and Vagina

Sponsors: Department of Obstetrics & Gynecology, Baylor College of Medicine, Houston

Location of course: Shamrock Hilton Hotel, 6900 Main, Houston

Date: Oct 26–28, 1978

Duration: Continuous; 3 days; Thursday–Saturday

Fee: $325

Designed for: Specialists in Obstetrics & Gynecology

Credit: Category 1, AMA Physician's Recognition Award

Teaching methods: Audiovisual materials, lecture

Contact: Fred M. Taylor, MD, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Radiology & Radioisotopes

Title: Cardiopulmonary Radiology—Update '78

Sponsors: Department of Radiology, UT Health Science Center at Dallas

Location of course: Fairmont Hotel, Ross & Akard, Dallas

Date: Oct 13–15, 1978

Duration: Continuous; 2½ days; Friday–Sunday; 20 total course hours

Fee: $225

Designed for: Specialists in Radiology

Credit: Category 1, AMA Physician's Recognition Award; 20 hours

Teaching methods: Audiovisual materials, lecture, open question, seminar

Contact: Continuing Education, UT Health Science Center at Dallas, 5323 Harry Hines Blvd, Dallas 75235

Title: Computed Tomography and Ultrasound—Current Perspectives

Sponsors: The University of Texas Medical School at Houston, The University of Texas System Cancer Center–MD Anderson Hospital and Tumor Institute, and The Office of Continuing Education

Location of course: Holiday Inn-Medical Center, Houston

Date: Oct 26–27, 1978

Duration: Continuous; 2 days; Thursday–Friday

Fee: $100, physicians; $50, residents, fellows & interns

Designed for: Specialists in Radiology, Neurosurgery, Urology

Credit: Category 1, AMA Physician's Recognition Award; 14 hours

Contact: The University of Texas Medical School, Office of Continuing Education, Box 20708, Houston 77030

Title: Seminar with Specialists in Diagnostic Radiology

Sponsors: UT Health Science Center at San Antonio

Location of course: UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio

Date: Oct 26–27, 1978

Duration: Continuous; 2 days; Thursday–Friday; 12 total course hours

Fee: To be announced

Designed for: Specialists in Radiology

Credit: Category 1, AMA Physician's Recognition Award; 12 hours

Teaching Methods: Audiovisual materials, lecture, open question

Contact: Office of Continuing Education, UT Health Science Center at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284

NOVEMBER

Anesthesiology

Title: BAY-CAP III—Anesthesia and Surgery for Congenital and Valvular Heart Disease

Sponsors: Dept of Anesthesiology, Baylor College of Medicine, Houston

Location of course: Houston Marriott Motor Hotel, Houston

Date: Nov 9–10, 1978

Duration: Continuous; 2 days; Thursday–Friday

Fee: $150

Designed for: Specialists in Anesthesiology

Credit: Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Fred M. Taylor, Director, Office of Continuing Education, Baylor College of Medicine, Texas Medical Center, Houston 77030

Cardiovascular Disease

Title: Contemporary Clinical Cardiology

Sponsors: Presbyterian Medical Center; Council on Clinical Cardiology, American Heart Association; Division of Continuing Education, The University of Texas Health Science Center at Dallas

Location of course: Auditorium, National Center, American Heart Association, Dallas

Date: Nov 17–18, 1978

Fee: $200

Credit: Category 1, AMA Physician's Recognition Award; 15 hours

Contact: Dr. Barrett Steelman, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas 75235 (214) 688-2166

Emergency Care

Title: Comprehensive Management of Urgent Medical Problems—An

Approach to the Diagnosis and Treatment of the Adult Emergency Room Patient

Sponsors: UT Health Science Center at Houston; UT Medical School at Houston, School of Allied Health Sciences and Division of Continuing Education

Location of course: Stouffer's Hotel, Greenway Plaza, Houston

Date: Nov 13–17, 1978

Duration: Continuous; 5 days; Monday–Friday; 8 AM–5 PM

Fee: $325

Enrollment: Maximum, 150

Credit: Category 1, ACEP; AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 40 hours

Contact: Division of Continuing Education, UTHSC at Houston, Box 20367, Houston 77025

Family Medicine

Title: Children's Orthopaedics for Family Physicians and Pediatricians

Sponsors: Texas Scottish Rite Hospital for Crippled Children, The University of Texas Health Science Center at Dallas

Location of course: Hay T. Clark Memorial Auditorium, Texas Scottish Rite Hospital for Crippled Children, 2222 Welborn St, Dallas

Date: Nov 18, 1978

Duration: Continuous; 1 day; Saturday; 8 AM–4:30 PM

Fee: $40

Designed for: Specialists in Family Practice, Pediatrics

Credit: Category 1, AMA Physician's Recognition Award; 7 hours

Teaching methods: Audiovisual materials, lecture, open question

Contact: Dennis R. Wenger, MD, Program Director, Texas Scottish Rite Hospital for Crippled Children, 2222 Welborn St, Dallas 75219

General Medicine

Title: The Care of the Terminally Ill Patient

Sponsors: Dallas County Health Dept; Methodist Hospitals of Dallas; Texas Nursing Home Administrators Licensure Board

Location of course: Weiss Auditorium, Methodist Hospitals of Dallas, Oakenwald & Stemmons Ave, Dallas

Date: Nov 17, 1978

Duration: Continuous; 1 day; 8 AM–5:30 PM

Fee: $35, advanced; $40, on site

Enrollment: Maximum, 300

Contact: Shirley Fleshin, RN, Dallas County Health Dept, 1936 Amelia Court, Dallas 75235

Title: Clinical Seminar: A New Class of Diuretics with Uricosuric Activity

Sponsors: Division of Continuing Education, Southwestern Medical School, The University of Texas Health Science Center at Dallas

Location of course: Adolphus Hotel, Dallas

Date: Nov 16–17, 1978

Fee: none

Credit: Category 1, AMA Physician's Recognition Award; 9 hours

Contact: Norma Wilcox, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas 75235 (214) 688-2166

Genetics

Title: Genetic Screening and Counseling: Legal and Ethical Issues

Sponsors: Genetics Center, North Texas State University; The University of Texas Health Science Center at Dallas

Location of course: Dallas Hilton, Dallas

Date: Nov 2–4, 1978

Fee: $35; students, $15

Credit: Category 1, AMA Physician's Recognition Award; 14 hours

Contact: Dr. Steve Applewhite, Genetics Center, NTSU, Denton, TX 76201 (817) 788-2011, ext 57

Neurology

Title: Current Therapy of Common Neurological Disorders

Sponsors: Dept of Neurology, The University of Texas Health Science Center, Southwestern Medical School at Dallas; A. Webb Roberts Center for Continuing Education

Location of course: Zale Lecture Hall, UTHSC at Dallas

Date: Nov 3–4, 1978

Fee: Practicing physicians, $160; Residents, $80

Credit: Category 1, AMA Physician's Recognition Award; 14 hours

Contact: Norma Wilcox, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas, 75235 (214) 688-2166

Otolaryngology

Title: Seminar on Cancer of the Head and Neck

Sponsors: Dept of Otolaryngology, Southwestern Medical School, The University of Texas Health Science Center at Dallas; A. Webb Roberts Center for Continuing Education

Location of course: Zale Lecture Hall, UTHSC at Dallas

Date: Nov 30–Dec 2, 1978

Fee: Practicing physicians, $200; Residents, $100

Credit: Category 1. AMA Physician's Recognition Award; 20 hours

Contact: Carolyn Kirk, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas 75235 (214) 688-2166

Psychiatry

Title: Phenomenology and Treatment of Alcoholism

Sponsors: Dept of Psychiatry, Baylor College of Medicine, Houston

Location of course: Shamrock Hilton Hotel, Houston

Date: Nov 30–Dec 1, 1978

Duration: Continuous; 2 days; Thursday–Friday

Fee: $175

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Fred M. Taylor, Director, Office of Continuing Education, Baylor College of Medicine, Texas Medical Center, Houston 77030

Radiology & Radioisotopes

Title: Postgraduate Workcourse in Diagnostic Ultrasound

Sponsors: Dept of Radiology, Baylor College of Medicine, Houston

Location of course: Ben Taub General Hospital, Houston

Date: Nov 6, 1978–Dec 1979

Duration: Intermittent: Mondays

Fee: $350

Designed for: Radiologists

Credit: Category 1, AMA Physician's Recognition Award; 40 hours

Contact: Fred M. Taylor, Director, Office of Continuing Education, Baylor College of Medicine, Texas Medical Center, Houston 77030

Title: Cardiovascular Nuclear Medicine

Sponsors: Dept of Radiology, Southwestern Medical School, The University of Texas Health Science Center at Dallas

Location of course: Fairmont Hotel, Dallas

Date: Nov 11–12, 1978

Fee: Practicing physicians, $225; Residents, $100

Credit: Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Carolyn Kirk, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas 75235 (214) 688-2166

Urology

Title: 23rd Annual Clinical Conference—Cancer of the Genitourinary Tract; Eleventh Annual Special Pathology Program

Sponsors: The University of Texas System Cancer Center M. D. Anderson Hospital and Tumor Institute; National Cancer Institute; American Cancer Society, Texas Division, Inc.

Location of course: Shamrock Hilton Hotel, Houston

Date: Nov 2–4, 1978

Duration: Continuous; 3 days; Thursday–Saturday

Fee: $50

Designed for: Specialists in Primary Care, Oncology, Urology

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 14 hours

Contact: George R. Blumenschein, MD, Associate Director, Education, The University of Texas System Cancer Center, M. D. Anderson Hospital and Tumor Institute, Texas Medical Center, Houston 77030

Title: UTMB Urology Conference

Sponsors: Continuing Medical Education,Short Courses, UT Medical Branch, Galveston

Location of course: Galvez Hotel Motel, 21st & Seawall, Galveston

Date: Nov 8–11, 1978

Duration: Continuous; 3 days; 20 hours

Fee: $140

Designed for: Specialists in Primary Care, Urology

Enrollment: Maximum, 130; minimum, 75

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 20 hours

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The present and future of coronary artery surgery in the community hospital

Charles H. Moore, MD Fallon T. Gordon, MD James A. Allums, MD

Surgical management of coronary artery disease in the community (Beaumont) was analyzed by comparing 200 consecutive cases seen from September 1975 through December 1976 (group 1) to 105 cases seen from January to June 1977 (group 2). Overall mortality was 5.5% for both groups. Significant changes in the types of patients referred for surgery have occurred. In group 1, 10% had left main artery stenosis (LMS), 16% were operated upon for unstable angina, 14% were over age 65, and the average number of grafts per patient was 2.56. In group 2, however, 23% had LMS, only 5% had unstable angina, 30% were over 65 years old (11% over age 70), and the number of grafts per patient had increased to 3.33.

All deaths occurred in an easily recognizable high-risk category of patients; all were over 65 years of age and had two or more other high-risk factors, namely, LMS, congestive heart failure, poor ventricular function as defined by EF < 30%, left ventricular aneurysms, or concomitant valve replacement.

If the deaths of patients with multiple high-risk factors were reclassified, then 288 consecutive patients would have undergone coronary artery bypass without mortality, and many of these also had high-risk features.

The American lifestyle—affluence, rich food, sedentary living, cigarette smoking, and a high quotient of stress—has made coronary heart disease the fashionable, Western way of death.

More than 1,200,000 Americans suffer a new heart each year and 600,000 die annually from coronary heart disease. The average person delays four to five hours from the onset of chest pain until he goes to the hospital. Nearly two thirds of all cardiac deaths occur outside the hospital.

If we could save only 3–4% of patients dying with acute myocardial infarction, 20,000–30,000 lives could be saved annually. Coronary heart disease cost the United States $43.5 billion in 1975. Significantly, only one third of this cost was for hospital and medical care, while two thirds was related to loss of wages and inability to work caused by the morbidity and mortality of the disease process itself.[1]

Tremendous scientific advances have been made in the past decade; monitoring and resucitative equipment abound. Nursing staffs are trained in cardiopulmonary resuscitation, and more aggressive treatment of arrhythmias has decreased the hospital mortality from heart attacks from 30% to 15%. Mobile paramedics are proving their effectiveness in resuscitating sudden death patients, and in some cities more than 20% of the citizens have undergone successful defibrillation following cardiac arrest.[2,3] Better understanding of the heart as a pump, with manipulation of preload and afterload, and the effectiveness of new cardiac drugs is also improving survival rates. Coronary artery bypass surgery was performed on an estimated 70,000 Americans in 1976. It not only relieves angina in 80–90% of the cases, but in certain subgroups, such as left main coronary artery stenosis and triple vessel coronary artery disease, surgically treated patients live longer than do comparable patients who receive medical treatment.[4-7]

The manifestations of coronary heart disease include angina, acute myocardial infarction, ventricular aneurysms, mitral regurgitation, septal defects, myocardial fibrosis with congestive heart failure, and sudden death. The spectrum of indications for coronary surgery has expanded from angina pectoris to urgent, unstable angina[8] and even acute myocardial infarction.[9] Today, the asymptomatic, high-risk patient with triple vessel disease is also being considered for revascularization. The complications of infarction—congestive heart failure, ventricular aneurysms, mitral regurgitation, and ventricular aneurysms, mitral regurgitation, and ventricular septal defects—can be treated surgically.[10,11] The surgical risk for patients with poor ventricular function, heart failure, unstable angina, left main stenosis, triple vessel disease, and cardiomegaly are being defined rapidly.[12-14]

Beaumont Series

In Beaumont, Tex, more than 540 cardiac operations were performed from March 1972 to 1977. We analyzed 200 consecutive cases of coronary heart disease treated surgically from September 1975 through December 1976 (Fig 1). One hundred fifty-three had disabling angina. Five of these patients died for an operative mortality of 3.2%. Of these five, three were over 70 years old and the other two had poor ventricular function with ejection fractions less than 20%. Thirty-one patients had unstable angina, ten in association with left main artery stenosis, and four of these patients died in the perioperative period for a mortality of 12.9%. Two of these patients died during induction of anesthesia, and the other two were found at

autopsy to have acute myocardial infarction prior to surgery. Ten patients had resection of left ventricular aneurysms, with one death. Five additional patients had aortic valve replacement combined with coronary artery bypass, and one patient died. One patient had resection of a ventricular aneurysm with closure of septal defect and coronary revascularization. The overall mortality was 11 deaths, or 5.5%, and there were four late deaths, or 2%. Two of the late deaths were related to pulmonary emboli; one patient died of constrictive pericarditis and one died of arrhythmia. There were 485 saphenous vein grafts placed in 180 patients, or 2.58 grafts per patient. The intra-aortic balloon pump was utilized in 20 patients with five survivors (25%). Postoperative complications were few. Significant atrial arrhythmias developed in 30%, and ventricular arrhythmias in 2.5%. There were no infections in this series and only one patient required reoperation for bleeding (0.5%).

A special study was undertaken to evaluate the incidence of perioperative infarction in 50 consecutive patients. Serial electrocardiograms and cardiac enzymes of creatine kinase (CK) with the myocardial band isoenzyme (MB) were taken daily and correlated with preoperative and postoperative myocardial scans using technetium pyrophosphate (TcPYP). Clinical correlation, stress exercise testing, and postoperative angiography in selected patients revealed the following results: Two of the 50 patients (4%) had perioperative infarction by all three criteria of positive ECG, positive CK-MB and positive scan (Fig 2). There was a high incidence of false-positive scans, and we believe that the scan must be negative before operation and then become positive in the early postoperative period to be confirmed as positive. We have reported these results previously.[13] The myocardial band isoenzyme of creatine kinase was highly sensitive for myocardial injury but not specific for myocardial infarction in the surgical setting. We conclude that serial electrocardiograms with new Q-wave development or loss of R wave is the best indicator of infarction. It should be noted, however, that the two patients with all three criteria positive for infarction both had uncomplicated clinical courses and both had improved results of stress exercise tests six weeks following operation. Therefore, we feel that the perioperative infarction is different from acute myocardial infarction not associated with surgery, and generally morbidity and mortality in the perioperative case is not as severe.

An analysis of 105 consecutive coronary bypass cases performed in Beaumont from Jan 1 through June 30, 1977, defined certain trends in our surgical treatment of coronary heart disease (Fig 1). Stenosis of the left main artery was present in 25 patients, a 23% incidence as compared to the 10% incidence in the previous year. A change in management of this high-risk group of patients reduced mortality from 20% in 1976 to 4% (1 in 25) in 1977.[14] We now use the Swan-Ganz catheter with thermister tip preoperatively to monitor left ventricular filling pressure, and cardiac output is measured using the Edwards Model 9520 Cardiac Output Computer during the induction phase as well as the operative and postoperative periods. Patients referred for surgery in 1977 generally were older than in previous years, with 30% over 65 years of age and 11% of the total group over age 70 (Fig 3). The number of grafts increased from 2.58 to 3.33 per patient, reflecting the trend towards total revascularization in all patients. The overall mortality remained at 5.6%, while all 1977 deaths were in patients over 65 years who also had high risk features such as large ventricular aneurysms and left main coronary artery stenosis. One 76-year-old man had triple vessel disease with a tender abdominal aortic aneurysm requiring repair. Patients with cerebrovascular insufficiency or carotid artery stenosis have concomitant carotid endarterectomy with coronary bypass surgery.

The increased surgical risk for patients with unstable angina undergoing surgery makes it imperative to exclude acute myocardial infarction before operation. At the same time, delays in medical treatment before referring patients for surgery has led to acute myocardial infarctions and death in several patients who might have benefited from coronary bypass procedures.

1. Analysis of cases of coronary heart disease treated surgically.

	1976			Jan–June, 1977		
Diagnosis	No. Patients	Mortality	%	No. Patients	Mortality	%
Coronary artery disease	153	5	3.2	93	4	4
Unstable angina	31	4	12.9	5	0	
Left ventricular aneurysm	10	1	10	5	2	40
Aortic valve replacement with coronary artery bypass	5	1	20	2	0	
Ventricular septal defect with coronary artery bypass	1	0		0		
Total	200	11	5.5	105	6	5.6

Community Management

An exciting area in the development of community management of coronary disease has been the design and development of a highly efficient emergency coronary care program. This combines effective ambulance utilization with highly trained paramedical personnel capable of response in less than four minutes. A communications system advises our cardiovascular team of the patient's condition in transit to the hospital. By the inception of such a program and the education of the community at large of the risks, signs, and symptoms of coronary heart disease, we think that the high, sudden death mortality of 60 to 70% of all patients dying of coronary disease can be diminished, as patients will arrive at the hospital earlier and benefit from intensive medical evaluation and treatment. Those patients whose conditions cannot be stablilized quickly with medical management then may receive emergency coronary arteriography, and decisions can be made regarding the feasibility of coronary bypass surgery in an effort to decrease the morbidity and mortality of coronary heart disease.

Conclusion

Coronary heart disease is the major health program in the United States today. Health care delivery, including control, prevention, and rehabilitation can and must be delivered at the community level. Medical measures to control single risk factors have not significantly altered the natural course of arteriosclerosis. The results of ten years of coronary bypass surgery indicate that angina is effectively relieved in most patients, and in certain subgroups of left main stenosis and triple vessel coronary disease, life is actually prolonged over comparable groups receiving medical treatment.

Our overall surgical mortality has remained at 5.5%, whereas certain high-risk conditions, such as left main stenosis, have become more frequent while their mortality has decreased. All deaths occurred in patients over 65 years of age who also had other high-risk features. If those deaths were reclassified, we could say that 288 consecutive patients have undergone coronary artery bypass surgery without mortality, and that many of these patients also had high-risk features.

2. Results of study to evaluate incidence of perioperative infarction in 50 consecutive patients.

No. Patients	CK-MB	Scan	ECG	%
35	–	–	–	70
2	+	+	+	4
1	+	+	–	2
3	–	–	+	6
7	–	+	–	14
2	+	–	–	4

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3. Comparison of cases in 1976 and 1977.

	1976, 200 Patients		1977, 105 Patients	
	No.	%	No.	%
LMS	20	10	25	23
> 65	28	14	31	30
> 70	5	2.5	12	11
Grafts/Patient	2.58		3.33	
Intra-aortic balloon pump	20	5 Survived 25%	8	2 Survived 25%

Coronary artery spasm: an expanding role in ischemic heart disease

Albert E. Raizner, MD Robert A. Chahine, MD Tetsuo Ishimori, MD Robert J. Luchi, MD

Coronary artery spasm initially gained clinical attention as an important cause of variant angina. Its subsequent demonstration in patients with classical angina pectoris and myocardial infarction suggests that coronary spasm may play a role in the broad spectrum of ischemic heart disease. Coronary arteriography is, at present, the only means of diagnosis, but it may lead the physician to underestimate the true incidence of spasm. While the mechanism is largely unknown, coronary artery spasm can be provoked by direct and reflex sympathetic stimulation. Coronary artery spasm may offer an explanation for some catastrophic events which occur in patients with coronary artery disease.

The role of coronary artery spasm in the genesis of myocardial ischemia has swung like a pendulum in the cardiovascular literature. In the early 1900s some notable authorities believed that coronary artery spasm constituted an important mechanism of ischemic heart disease. Sir William Osler, in 1910 wrote, "I do not see any better explanation of anginal pain."[1]

In the ensuing decades, however, it was felt that a better explanation for myocardial ischemia existed. Postmortem studies of patients dying of ischemic heart disease established the importance of the underlying fixed atherosclerotic lesion. The advent of coronary arteriography further confirmed that patients with ischemic heart disease have arterial narrowing which generally exceeds 50% of the internal diameter of the vessel. The current concept of ischemic heart disease stresses the necessity of maintaining a balance between coronary arterial supply and myocardial oxygen demand. Clinical manifestations of myocardial ischemic disease result when myocardial demands for oxygen cannot be met by the coronary arterial supply. Patients with coronary artery disease may have adequate oxygen delivery when the heart is at rest or minimally stressed; but with significant cardiac stress the myocardial oxygen demand exceeds that which a partially or totally obstructed coronary artery can provide and ischemia develops. Exercise stress tests provide confirmation of this concept; during exercise, as myocardial work and oxygen demand increase, a stage is reached at which ischemia, manifested by ST segment depression, is noted. The level at which ischemia develops is often reproducible, further supporting the fixed lesion concept.

In 1959, Prinzmetal presented a series of patients who did not conform to the classical concepts of ischemic heart disease and whom he therefore labeled as having a "variant of angina."[2] These patients had chest pain which was typical of angina pectoris in quality and location, but differed in that it occurred generally at rest rather than with effort. Furthermore, electrocardiograms recorded during these episodes of pain showed ST segment elevation rather than the usual ST segment depression characteristic of classical angina. On the basis of limited postmortem studies, Prinzmetal noted that these patients had severe fixed coronary atheromatous lesions in a single major vessel. He speculated however, that the attacks were the result of a temporary increase in the vessel wall tone with consequent transient narrowing. This speculation was necessary since the fixed lesion could not account for the symptoms of patients with variant angina in view of the following: (1) If patients with variant angina had fixed coronary artery stenosis, why did the pain typically occur at rest when the heart was unstressed? (2) Some patients with variant angina were found to have normal coronary arteries.[3]

Prinzmetal's speculation was supported by recent findings in the cardiac catheterization laboratory. In 1972, Dhuranda noted coronary artery spasm during coronary arteriography in a patient with variant angina.[4] Oliva related such spasm to the occurrence of chest pain.[5] Subsequently, many reports confirmed the finding of coronary artery spasm as the underlying mechanism for the chest pain in patients with variant angina.[6-11] Thus, coronary artery spasm became firmly established as a clinically important phenomenon in the syndrome of variant angina (Fig 1).

Significance in Other Ischemic Heart Disease Syndromes

Shortly after these reports, we reported a patient who provides an important link in the understanding of the role of coronary spasm in other forms of ischemic heart disease.[12] The patient in all respects had classical angina. His pain was substernal, pressing, precipitated usually by effort and relieved by rest and nitroglycerin. His resting electrocardiogram showed typical ischemic ST-T wave abnormalities in the inferior leads. A treadmill test showed ST segment depression after five minutes of exercise at which time the patient developed chest pain. Coronary arteriography (Fig 2) showed that the right coronary artery had a borderline lesion in the proximal

segment. During the procedure the patient felt discomfort in his chest, and the coronary artery was found to be completely occluded by spasm in the vicinity of the atheromatous lesion. Following treatment with nitroglycerin the artery once again was patent. Thus, coronary artery spasm may be seen in patients with classical angina as well as with variant angina. This observation has important implications:

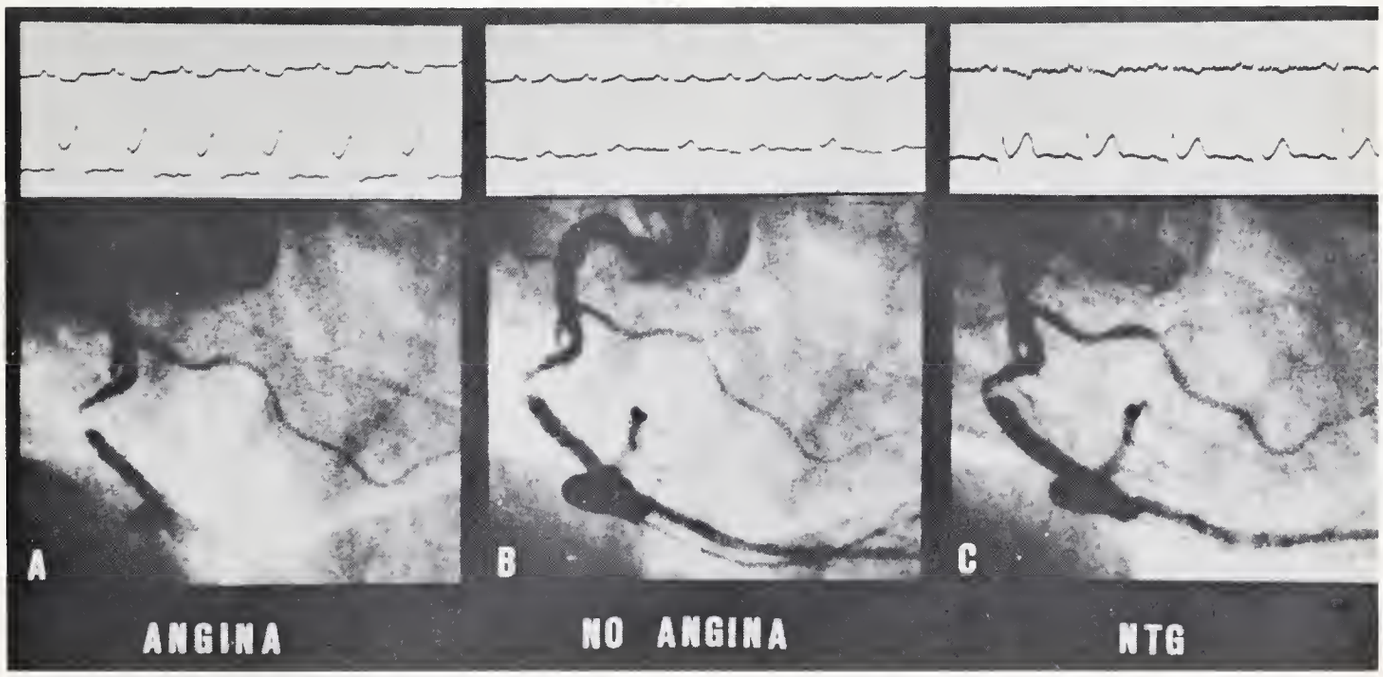
1. If one considers the spectrum of coronary artery disease, one sees that patients can appear with various syndromes within the spectrum. For example, patients may have coronary artery disease and be asymptomatic, or they may have stable angina, unstable angina, myocardial infarction, or sudden death. It is common for patients to go from one syndrome into another quite abruptly. For example, a myocardial infarction may develop in a patient with stable angina; an asymptomatic patient may die suddenly, etc. It is inconceivable that such abrupt changes result from progression of fixed organic disease. Coronary artery spasm could contribute to such abrupt clinical changes.

2. Patients with classical angina pectoris are occasionally found to have normal coronaries.[13] The possibility must be considered that some of these patients have coronary artery spasm as a cause of their anginal syndrome.

3. Victims of myocardial infarction or sudden cardiac death are sometimes found to have no significant coronary artery disease at arteriography or autopsy.[14] There is increasing evidence implicating coronary spasm.[15]

One might suggest that if coronary artery spasm does play a significant role in the broad spectrum of ischemic heart disease, why is it not seen more frequently during coronary arteriography? There are several explanations for the infrequent documentation of coronary artery spasm during arteriography: (1) Angiographic contrast media are hyperosmolar solutions and are potent vasodilators. (2) In many, if not most, catheterization laboratories, nitroglycerin is administered before arteriography. (3) Angiographers are justifiably reluctant to inject contrast media into the coronary arteries when a patient is having chest pain; yet it is at this time that spasm is most likely to occur. (4) Coronary artery spasm may be mistakenly identified as a fixed atheromatous lesion. We have seen several patients who were referred to us for coronary bypass of what were thought to be fixed organic lesions but who, in fact, had only transient coronary artery spasm in otherwise normal coronary arteries.

1. Electrocardiogram (leads I and III) and right coronary arteriogram in a patient with variant angina. (A) Coronary artery spasm results in complete occlusion of distal right coronary and ST segment elevation in lead III. (B) As pain subsides, ST segments return to normal and the distal coronary is seen. (C) Following nitroglycerin, further dilatation occurs, including the middle segment at the site of a high-grade fixed lesion. Spasm occurred at the site of an atheromatous lesion as well as the distal vessel, producing severe transient ischemia.



In view of these factors which tend to reduce the occurrence of spasm during arteriography, it is no wonder that the reported incidence of spasm is low. Demany noted an incidence of 0.93%,[16] O'Reilly 0.61%,[17] and Lavine 0.26%.[18] However, in our laboratory, where the foregoing factors are taken into consideration, the incidence of spasm is higher (2.96%).[19] Most incidences of coronary artery spasm involve the right coronary artery.[19] Further, if one were to classify coronary artery spasm as either spontaneous (occurring without apparent provocation) or induced (initiated by the catheter tip or pharmacologic maneuvers) the incidence of induced spasm is significantly higher than spontaneous spasm.[19]

Significance of Catheter-induced spasm

Catheter-induced spasm generally has been regarded as an iatrogenic phenomenon without important clinical significance. However this concept has been questioned. Catheter-induced coronary artery spasm has recurred in certain individuals on repeat catheterization, including one patient in whom catheter-induced spasm was noted on three separate studies.[20] It seems unlikely that recurrent catheter-induced spasm is entirely fortuitous; one must consider the possibility that a predisposition to spasm exists in certain individuals and may be provoked by catheter manipulation.

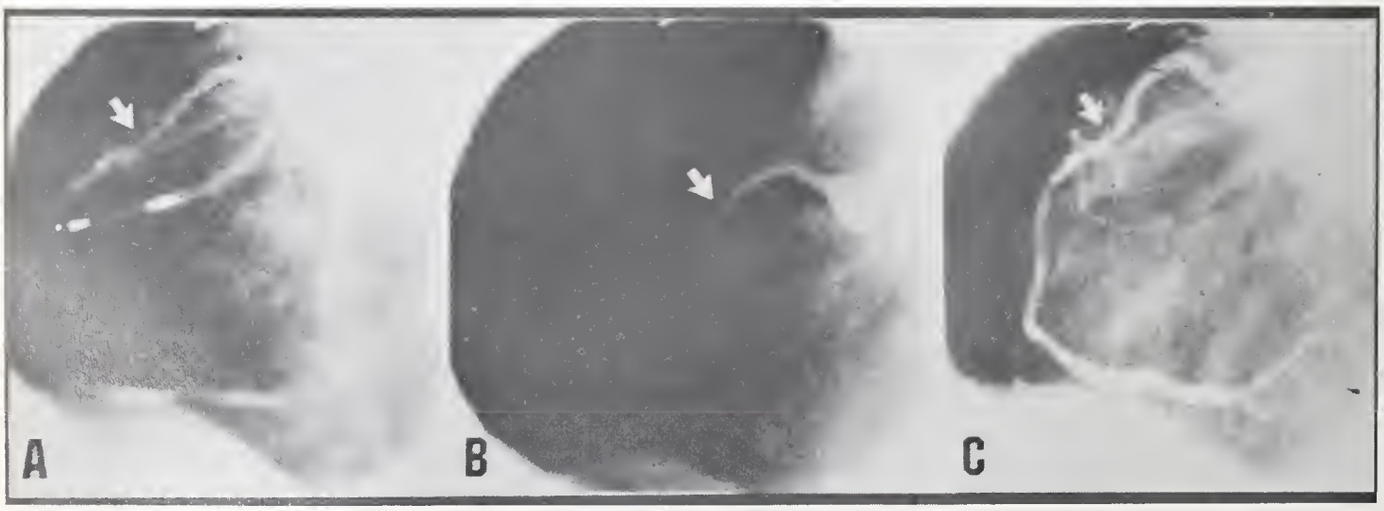
Some patients who manifest catheter-induced spasm also demonstrate spontaneous spasm of other portions of that vessel or other vessels in the coronary tree.[19,20] It is possible that the demonstration of catheter-induced spasm may prove to be a means of identifying the spasm-prone individual.

Mechanism of Coronary Artery Spasm

Coronary artery spasm may be provoked by interventions which either have a direct effect on the coronary vasculature or activate neurogenic pathways. The intravenous injection of ergonovine maleate has been shown to induce coronary artery spasm in some patients with variant angina.[21,22] Parasympathomimetic stimulation with methacholine may induce spasm,[23] and it is thought that the hypotensive effect of the drug may reflexly activate sympathetic vasoconstriction of the coronary artery. Sympathetic stimulation with the combination of epinephrine and propranolol stimulates alpha-adrenergic receptors resulting in coronary vasoconstriction.[24] Thus both direct and neurogenic influences may stimulate coronary artery spasm.

A recent study[25] noted that in patients with coronary artery disease, the cold pressor test could reflexly induce vasoconstriction of the coronary arteries and diminish coronary blood flow. Further, we have shown that sympathetic activation by cold pressor can cause angiographically demonstrable vasospasm of an already partially stenosed coronary artery, and can result in more complete interruption of coronary blood flow producing myocardial ischemia.[26] The ability to provoke coronary spasm by the cold pressor reflex has several important implications. First, it demonstrates that spasm with ischemia may occur as a result of a reflex response. Second, it is well known that some patients develop anginal pain when they walk into a cold environment; could this be reflex-induced coronary artery spasm? Third, is it possible that not only cold, but other sympathetic reflexes which occur in the course of getting up suddenly, straining at stool, sexual intercourse, and other known angina provokers, may, in part at least, act by reflex coronary vasoconstriction?

2. Coronary artery spasm in a patient with classical angina pectoris. (A) A noncritical atheromatous lesion is seen in the right coronary artery. (B) Coronary spasm results in complete occlusion. (C) Following nitroglycerin, the spasm resolves. (From Chahine RA, Raizner AE, Ishimori T, et al.[19] Reprinted by permission of the American Heart Association, Inc.)



Treatment of Coronary Artery Spasm

The mainstay of treatment of documented coronary artery spasm is coronary vasodilators such as nitroglycerin for the acute attack and longer-acting medication such as isosorbide dinitrate to prevent recurrences. Beta sympathetic blocking agents such as propranolol may promote spasm by allowing sympathetic vasoconstrictor influences to go unopposed, and should be avoided when possible. Other vasodilators such as alpha sympathetic blocking agents and slow channel calcium antagonists offer potential promise in the treatment of coronary spasms, but further investigation of these drugs is needed. Coronary artery bypass surgery does not appear to benefit the patient with diffuse spasm of an otherwise normal coronary artery, but it may help the patient who has a critically stenotic atheromatous lesion and superimposed spasm at that site.

In summary, several observations should be remembered:

1. Coronary artery spasm is a real phenomenon with important clinical implications.
2. Its occurrence may be far more common than is recognized angiographically.
3. It is intriguing to consider its possible role, not only in the syndrome of variant angina, but in the entire spectrum of coronary artery disease.
4. It is as rational and understandable as any other explanation offered to account for catastrophic events that may occur in patients with coronary artery disease.

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Autonomous hyperparathyroidism: documentation of results of parathyroidectomy by hand radiographs

Kerry Ford, MD Rodney Peveto, MD Melvyn H. Schreiber, MD

Parathyroidectomy was performed on 18 patients undergoing dialysis who developed radiographic evidence of skeletal changes of hyperparathyroidism despite normal serum phosphorus values and normal calcium-phosphorus products (<70).

The radiographic changes of autonomous hyperparathyroidism (AHP) disappeared in each of the patients following parathyroidectomy. Conventional film studies of the hands are a sensitive means of diagnosing AHP and documenting the good results of parathyroidectomy.

As the understanding of renal failure increases and long-term survival with medical management becomes more common, additional complications of renal pathophysiology are being discovered. One such complication is autonomous hyperparathyroidism (AHP). Patients with AHP have normal serum phosphorus values and normal calcium-phosphorus products but have hyperplastic and hyperfunctional parathyroid glands. An AHP diagnosis relies almost entirely on the radiographic appearance of bones.

Recent literature describes the use of isotope densitometry[1] and microradiography[2] to diagnose hyperparathyroidism. Although these methods are effective, they usually are available only at large medical centers and ordinarily are available only at large medical centers and ordinarily are unavailable for routine evaluation of the patient with renal failure.

In a previous report,[3] 99 cases of end-stage renal failure treated by maintenance dialysis were analyzed for evidence of bone disease. In the present investigation we studied 20 of these patients who underwent parathyroidectomy.

Our goal was to evaluate the effectiveness of conventional radiographs of the hand in establishing the diagnosis of AHP in patients being treated with dialysis and in documenting the response to parathyroidectomy.

Materials and Methods

Our subjects were selected from a population of patients undergoing home or in-center dialysis for renal failure. We analyzed the preoperative and postoperative hand radiographs of 20 such patients who underwent parathyroidectomy, and compared our radiographic findings with their clinical courses. Serum phosphorus levels and calcium-phosphorus products were normal in each of the patients. Routine follow-up included radiographs of the hands at least every three months. Posteroanterior views of the right hand were obtained at a 40-inch target-to-film distance using cardboard cassettes with par speed film (100 MaS @ 55 kvp).

For each patient, radiographs were selected from the immediate preoperative period; the early postoperative period, ranging from 6 to 18 months and averaging 12 months; and the late postoperative period, ranging from 18 to 70 months. The radiographs were analyzed by three radiologists, each without knowledge of how the other two had graded the findings. The bony changes were graded from 0 to 3+ using the method of Lehman and Schreiber (0-normal; 1+ suggestive of AHP; 2+ definite AHP; 3+ severe AHP).[3]

Results

Enlarged, hyperplastic parathyroid glands were found in all 20 patients. In 19 of the patients, 3½ glands were removed at surgery. In the 20th patient, all four parathyroid glands were removed because of widespread skeletal collapse secondary to the bone changes of AHP.

In 18 of the 10 patients who underwent parathyroidectomy for AHP, the preoperative diagnosis was made radiographically. The remaining two patients had clinical evidence of hyperparathyroidism but normal film findings. One of these patients had intractable congestive heart failure (secondary to hypercalcemic myocardiopathy) which resolved postoperatively. The other patient had persistent hypercalcemia even though his calcium-phosphorus product never exceeded 70. Of the 18 patients with preoperative radiographic evidence of hyperparathyroidism, all showed improvement in radiographic appearance of the hands in the early postoperative period. Seventeen of the 18 patients have been evaluated for more than 18 months postoperatively, and none of these patients showed evidence of hyperparathyroidism on their most recent hand radiographs. The remaining patient has been followed for less than 18 months postoperatively, but the radiographic appearance of her hand already shows resolution of hyperparathyroidism. None of the radiographs indicated worsening of autonomous hyperparathyroidism during the evaluation, and elevated parathormone levels measured in each patient preoperatively dropped to normal levels following parathyroidectomy.

Discussion

Our results demonstrate dramatic improvement of patho-

Findings before and after parathyroidectomy in 18 patients with autonomous hyperparathyroidism.

Patients		Months on Dialysis		Serum Calcium (mg/100 ml)				Serum Phosphorus Level (mg/100 ml)				Calcium-Phosphorus Product	
				Before		After		Before		After			
No.	Age/Sex	Before	After	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Before	After
1	31/M	26	68	6.7–10.5	8.9	7.4–11.2	9.4	2.7– 8.8	5.7	3.7–3.1	5.3	51	50
2	27/F	52	41	6.8–10.8	9.2	8.2–11.1	9.6	2.4–10.0	5.0	1.8–5.7	3.6	46	35
3	41/F	24	25	7.1–11.5	8.6	5.0–12.4	7.5	2.8– 8.5	4.9	2.2–5.9	4.3	42	32
4	40/F	45	55	6.0–11.9	9.4	6.0–11.6	8.4	3.0–11.8	5.7	2.6–6.8	4.7	54	40
5	36/F	59	16	6.3–12.5	10.3	9.2–12.2	10.2	2.1– 9.7	5.2	3.5–5.8	4.2	54	43
6	28/M	69	31	4.0–11.1	8.8	6.3–11.6	8.6	2.5– 9.8	4.8	3.0–5.1	3.3	42	28
7	45/F	41	45	8.7–12.0	10.4	7.9–11.6	10.3	2.9– 6.7	4.4	2.5–5.8	4.3	46	44
8	32/F	61	14	6.1–11.1	9.8	7.3–12.2	9.9	1.1–12.6	4.7	1.8–4.4	3.2	46	44
9	33/M	50	19	4.8–10.4	9.3	4.9– 9.0	5.7	2.2– 7.0	4.9	2.6–5.4	4.2	46	24
10	55/F	16	17	6.8–10.0	8.9	6.9– 9.4	8.8	3.5– 6.5	4.5	3.8–5.9	4.7	40	41
11	53/M	68	19	6.0–10.6	9.0	7.8–11.3	9.4	2.1– 8.2	4.5	1.3–4.6	3.3	41	31
12	34/F	39	18	4.7–11.2	9.1	7.5–10.8	8.5	2.3– 7.5	5.0	3.1–5.5	4.5	46	38
13	52/F	29	51	6.9–12.1	10.0	7.1–11.8	8.8	1.4–13.6	4.0	2.5–5.6	4.6	40	41
14	25/F	45	37	7.9–11.6	9.7	7.1– 9.7	8.6	2.9– 9.6	5.3	3.2–5.0	4.5	51	39
15	32/F	46	14	3.9–10.8	9.1	5.0– 9.1	6.0	5.5–10.5	6.7	1.4–4.2	2.7	61	16
16	39/M	47	20	7.4–11.0	9.8	7.0– 9.3	8.0	3.8– 7.4	5.5	2.9–4.1	3.3	54	26
17	52/M	31	36	7.5–11.4	9.5	8.0–11.0	9.0	2.6– 7.9	5.0	3.2–5.9	4.9	48	44
18	51/M	52	27	7.1–11.2	9.6	5.8–11.2	8.4	1.8– 9.3	4.8	2.0–8.9	4.9	46	41

Patient	Radiographic findings			Parathormone levels (IU)			
		After		Before		After	
No.	Before	Early	Late	Range	Mean	Range	Mean
1	+2	0	0	—	—	50–485	224
2	+2	0	0	355–500	428	25–396	173
3	+2	0	0	45–700	434	25	25
4	+3	+2	0	—	—	335–361	348
5	+1	0	0	106–730	400	96–101	99
6	+2	0	0	236–416	303	25–100	42
7	+3	0	0	460–1140	800	40–125	70
8	+3	0	0	750–1600	1037	58	58
9	+3	0	0	70–832	666	215–610	455
10	+2	+1	0	456–480	468	131–305	218
11	+2	+1	0	400–1156	745	25–321	127
12	+2	0	0	312–1320	791	36–194	110
13	+3	+1	0	83–1390	534	180–660	396
14	+1	0	0	245–375	310	90–206	163
15	+2	0	0	500–750	618	134–645	344
16	+2	0	0	576–976	714	25–200	96
17	+2	+1	0	170–500	390	25–250	103
18	+2	0	0	500–880	640	400–770	603

logic changes of hyperparathyroidism following parathyroidectomy in this carefully selected group. The radiographic appearance of the hands returned to normal in each of our patients following surgery.

This is in contrast with the findings of Griffiths and associates,[4] who have reported that subtotal parathyroidectomies failed to stop bone mineral losses in two women and six men in a 45-patient group with chronic renal failure. Careful selection of patients from a medically well controlled group of patients undergoing dialysis probably accounts for the better results in our series.

An elevated parathormone level also is a good predictor of surgical response to parathyroidectomy. Parathormone determinations are not as readily available as hand radiographs, and "normal" values in patients receiving long-term dialysis remain uncertain.

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Improving the delivery of health services in South Texas

William W. Schottstaedt, MD Edward N. Brandt, Jr, MD, PhD John G. Bruhn, PhD

The Area Health Education Center (AHEC) program was established at The University of Texas Medical Branch (UTMB) at Galveston to increase the number of health professionals in South Texas. During the program's first five years, health manpower increased 34.5%, a figure accompanied by other changes which appear to have improved the delivery system's capability to meet public health needs.

The area south of a line from Corpus Christi to Laredo has been plagued for years by a medical manpower shortage, a fact manifested by 1970 statistics revealing only one physician for every 2,074 persons and one registered nurse for every 1,311 persons in the four-county area surrounding Laredo. Ratios for the Lower Rio Grande Valley were similar, and although ratios in Corpus Christi were higher, they still were well below state averages.

Since 1970, however, health manpower resources have increased notably in South Texas. A survey conducted during the spring of 1977 revealed a 20% increase in the number of physicians, a 43% increase in registered nurses, a 27% increase in licensed vocational nurses, and a 39% increase in allied health personnel (Fig 1). Because the increase in total population is estimated as 9.2% during that period, manpower increases represent a meaningful improvement.

Area Health Education Center

A factor in these gains has been the Area Health Education Center (AHEC) program established in 1972 by The University of Texas Medical Branch (UTMB) with federal funding from the Bureau of Health Manpower Education. The program primarily focused on South Texas problems, particularly those of the Mexican-American population. Mexican-Americans constitute 88% of the population in the Laredo area and 78% in the Lower Rio Grande Valley.* They share the educational, occupational, and economic problems of minority populations elsewhere and face similar difficulties in health care: limited availability or accessibility and culturally-based reluctance to seek medical attention. The AHEC-UTMB program attempted to improve health care delivery in the area and to increase Mexican-American participation in health careers through education.

*Census data, 1970.

Educational Outreach

A common approach to this problem is to send students from health science center preceptorships and special programs to insufficiently served areas, with the anticipation that some participants will choose a career in the area. Under the AHEC contract, medical, dental, and pharmacy students from Galveston, Houston, San Antonio, and Austin were allowed to select preceptorships in South Texas. Although the first two dental students to join the program established careers in South Texas and ten of 12 pharmacy students who chose this elective in 1976 and 1977 remained there to practice, none of the medical students and few other dental students in AHEC's first preceptorship approach settled there.

One factor to keep in mind in evaluating this record is the long interval, for most medical students, between an elective in the senior year of medical school and selection of a practice site at the completion of residency training. By contrast, a few physician-residents from UTMB who expressed interest received assignments in the Lower Rio Grande Valley between 1974 and 1976. Four of these physicians were in practice there at the end of 1977. A pediatric residency program, located at Driscoll Foundation Children's Hospital in Corpus Christi and partially funded by AHEC, added 19 physicians to South Texas during the years of AHEC support.

These inconsistent results prompted use of AHEC funds to help establish health profession training programs at certain colleges and universities in South Texas. Local programs, planners reasoned, would eliminate the need for students to leave the area for education and would allow them to maintain friendships and family ties. These factors, it was believed, would encourage students to remain in the area following completion of training. This approach seemed well suited to nursing and many of the allied health professions, and the institutions involved were pleased with the opportunity.

Health Career Education

As these programs began, we found, to our surprise, that few high school or freshman college students were aware of any health professions except medicine and nursing. Because one cannot choose a career if he is unaware of its existence, efforts were directed at early education toward health careers.

Faculty of UTMB schools of allied health sciences, nursing, and medicine and of the School of Dentistry

in Houston worked with public school educators to prepare learning modules for use in the schools. Game-playing techniques and simulations, utilizing age-graded materials, introduced students to 12 health professions.

Summer programs introduced interested high school students and college freshmen to a health science center (UTMB) and professionals working in fields of interest to the students. Students worked with the professionals and learned curriculum requirements for entering their specialties. These summer programs were designed to help students make appropriate career decisions.

Pan-American University, Laredo Junior College, Texas Southmost College, and Texas A&I University in Corpus Christi and Laredo received support to offer programs including preparation for careers as nurse aides, licensed vocational nurses, and associate degree and baccalaureate nurses, certified laboratory technicians, operating room technicians, medical assistants, medical record technicians, community health aides, and human services personnel. Advanced studies stipends permitted interested students to further their studies.

More than 2,500 students participated in the programs, and an AHEC follow-up survey indicated that 83% of the program graduates had pursued health professions in South Texas (Fig 2).

Continuing Education

For physicians, UTMB provided seminars and conferences, supplemented by special articles published in *The American Family Physician*, *Texas Medicine*, and *Continuing Education for the Family Physician*. UTMB faculty developed a self-instructional cancer education program for practicing physicians. A planned Academy of Continuing Medical Education will offer to physicians coordinated curricula based on individual need assessments.

Continuing education for nurses developed under a

1. Health manpower in South Texas.

	Number*			
	1970	1977	Change	% Change
Population	826,903	903,100	+ 76,197	+ 9.2
Hospitals	33	30	− 3	− 9.1
Hospital Beds	2,976	3,435	+ 459	+ 15.4
Nursing Homes	37	47	+ 10	+ 27.0
Nursing Home Beds	2,545	4,913	+ 2,368	+ 93.0
Physicians	687	825	+ 138	+ 20.1
Dentists	192	230	+ 38	+ 19.8
Nurses—RN	996	1,424	+ 428	+ 43.0
Nurses—LVN	1,870	2,372	+ 502	+ 26.8
Aides and Orderlies	2,285	2,444	+ 159	+ 7.0
Medical Technologist	250	299	+ 49	+ 19.6
Certified Laboratory Assistant	130	170	+ 40	+ 30.8
Radiology Technician	158	234	+ 76	+ 48.1
X-ray Assistant	35	60	+ 25	+ 71.4
Occupational Therapist	18	26	+ 8	+ 44.4
Physical Therapist	19	60	+ 41	+ 215.8
Dietitian & Food Service Manager	100	159	+ 59	+ 59.0
Dietitian Assistant	†	128	—	—
Inhalation Therapist	28	33	+ 5	+ 17.9
Inhalation Technician	41	136	+ 95	+ 231.7
Physician Assistant	0	38	+ 38	—
Nurse Practitioner	†	32	+ 32	—
Medical Assistant	278	364	+ 86	+ 30.9
Dental Assistant & Hygienist	296	404	+ 108	+ 36.5
Pharmacist	33	62	+ 29	+ 87.9
Health Aide	†	152	+ 152	—
Total Allied Health	3,597	5,003	+ 1,406	+ 39.1
Total Health Personnel	7,375	9,916	+ 2,541	+ 34.5

*1970 data from *Allied Health Manpower in Texas, 1970*. Texas Office of Comprehensive Health Planning, Austin, Tex, 1971, and *Estimates of the Population of Texas Counties and Metropolitan Areas*, Series P-25, publication 609. U.S. Department of Commerce, 1975.

1977 data from AHEC survey, spring 1977.

†Data not available.

separate organizational structure. Three program associates based in Laredo, Edinburg, and Corpus Christi formed regional nurse advisory committees to assess needs, to plan coordinated series of continuing education programs, and to work with nurses and their employers to encourage attendance at conferences and workshops. These were arranged by The University of Texas School of Nursing at San Antonio, with visiting speakers participating when desired. The school offered formal academic courses with university credit and refresher courses, in South Texas, including a special program allowing practicing nurses to work toward bachelor's and master's degrees with minimum time from their jobs.

The nursing continuing education program was successful, recording 9,000 to 14,000 participant-hours of instruction each year (Fig 3). According to many nurses, the workshops and subsequent relationships with other nurses and nursing school faculty improved the morale of South Texas nurses.

Institutional Consortia

The AHEC program required a great deal of cooperative effort and the response has been remarkable. Educational institutions in the Lower Rio Grande Valley formed a working relationship that permits them to plan and initiate single programs, serving all, for student recruitment and counseling, job placement, and employer liaison. A second consortium of educational institutions merged nursing program development for Laredo and Corpus Christi campuses.

These groupings utilized students—from University of Texas institutions at Houston, Galveston, Austin, and San Antonio—who gained field experience in South Texas while learning of opportunities in insufficiently served areas. These linkages combined health education resources of ten academic institutions in a working relationship to improve the environment for health delivery in South Texas.

Cooperation among hospitals was equally impressive. Academic programs in health fields cannot succeed without the resources of clinical institutions and provider agencies. Valley Baptist Hospital, McAllen General Hospital, Valley Medical Center, and Brownsville Medical Center, all in the Valley, and Mercy Hospital, Cowle Rehabilitation Center, and Doctors Hospital, in Laredo, provided educational opportunities for nursing and allied health students in AHEC-supported programs. Few of these institutions had worked in a formal relationship with an

*2. Health profession students receiving training through AHEC-supported programs.**

	1972–1973	1973–1974	1974–1975	1975–1976	1976–1977	Total
Medical	12	20	25	36	67	160
Medical residents	11	10	17	28	35	101
Nursing	91	65	179	275	295	905
Dental	0	14	14	27	142	197
Pharmacy	0	0	6	9	17	32
Public Health	5	6	6	4	3	24
Medical Technologist/Laboratory Assistant	26	32	48	73	88	267
Radiologic Technician	0	0	12	47	40	99
Occupational Therapist/Physical Therapist	0	0	11	29	50	90
Physician Assistant/Nurse Practitioner	0	0	2	3	19	24
Medical Assistants	0	0	23	32	41	96
Medical Records	0	1	2	4	8	15
Respiratory Therapy	5	10	9	10	7	41
Human Services	0	0	28	61	100	189
Operating Room Technician	0	0	0	16	18	34
Community Health Aide	0	50	40	33	35	158
Environmental Health Technician	0	10	6	0	0	16
Special Programs	0	0	0	53	94	147
Total	150	218	428	740	1,059	2,595

*Derived from regularly reported AHEC data.

academic institution. Developing such relationships required mutual patience and accommodation. When an academic program used facilities in more than one hospital, cooperation among hospitals was necessary.

In another cooperative effort, hospitals of the Lower Rio Grande Valley participated through their nursing directors to develop uniform nursing procedures for all Valley hospitals. This clearly required commitment of hospital administrators to the concept of cooperation and uniform procedures. The benefits have been great. Clearly defined procedures, based on current criteria, have improved patient care, and uniform procedures allow nurses to move among hospitals without losing time to learn local procedures during the first few weeks of a new job. Uniformity also permits cooperating hospitals to purchase equipment jointly, thus economizing with the larger supply and equipment orders. The ability of ten hospitals to arrange uniform procedures has been most encouraging.

Conclusion

The Area Health Education Center program thus ended its five-year contract, able to claim a number of substantial gains for the geographic area and the minority population it was developed to serve. Health personnel have been trained and retained in the area, improving health-professional/population ratios; practicing professionals in medicine, nursing, pharmacy, and allied health fields have received continuing education to maintain or improve their knowledge and skills; and educational programs for public school use and summer programs for high school seniors and college freshmen have introduced them to health career opportunities and assisted them in making appropriate career choices. Students from health science centers in Houston, Galveston, and San Antonio, and from The University of Texas at Austin have been introduced to the problems and opportunities for service in South Texas. In addition, a strong working relationship, established between educational institutions and clinical facilities, will allow many of these gains to be continued. A striking increase in the number of health professionals practicing in South Texas has occurred, but the impact of the AHEC program goes well beyond the increase in numbers.

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*3. Continuing education sponsored by AHEC.**

Contract Year	01	02	03	04	05	Total
			Number of participants			
Medicine	0	951	2,160	1,484	2,977	7,572
Nursing	0	1,345	1,520	2,015	1,307	6,187
Pharmacy	0	0	0	106	126	232
Allied Health	0	0	186	514	393	1,093
Total	0	2,296	3,866	4,119	4,803	15,084
			Participant hours			
Medicine	0	6,603	4,380	3,372	10,204	24,559
Nursing	0	8,648	9,986	13,952	11,302	43,888
Pharmacy	0	0	0	530	622	1,152
Allied Health	0	0	892	2,343	1,145	4,380
Total	0	15,251	15,258	20,197	23,273	73,979

*Derived from regularly reported AHEC data.

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Authors' names and degrees should follow the title, and their mailing addresses should be listed at the end of the article.

An introductory summary of 50–75 words is required.

Text should be narrative with complete sentences, few abbreviations, and logical subheadings. For spelling and usage the editors follow "Dorland's Illustrated Medical Dictionary," 25th edition, and "Webster's Third New International Dictionary, Unabridged."

References

Reference lists should contain in this order (1) author's last name, initials, (2) title of article or book, (3) name of journal, (4) volume and inclusive page numbers, written 33:156–160, (5) year. For books, the title should be followed by place of publication, name of publisher, and year.

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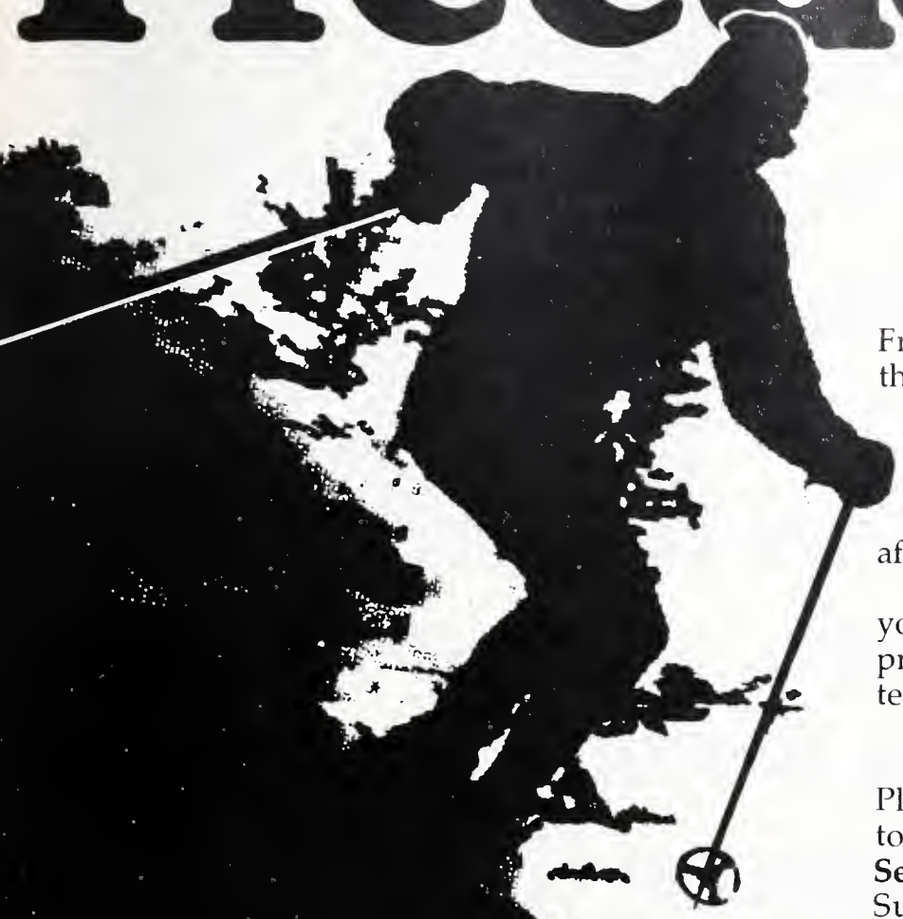

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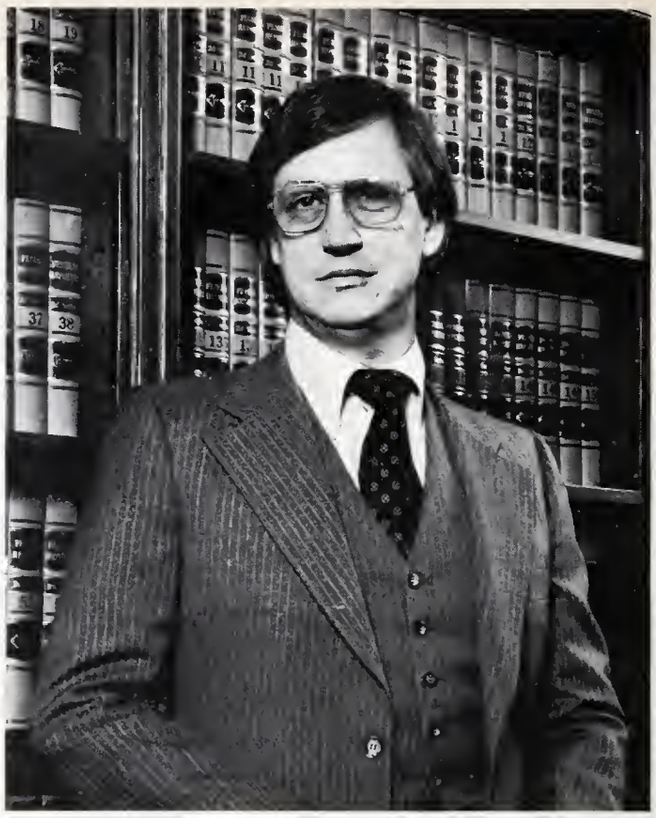

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Emergency room utilization at Hermann Hospital

Susanna Parker

This study included an investigation of the emergency room (ER) records from January 1976 to January 1977 and 30 hours of observation in the Hermann Hospital ER. Several parameters of utilization were considered from the records: (1) time of patient arrival; (2) distance of patient residence from the ER; (3) patient age, sex, and race; (4) patient economic status; (5) chief complaint; (6) urgency status; and (7) patient disposition. These parameters are presented and discussed in relation to patient use of the ER and ER responses to patients. The results from this study show unequivocally that the Hermann Hospital ER is used significantly more for primary care than for "true" emergencies.

This study of the Hermann Hospital emergency room (ER) was designed to see whether the ER is used predominantly for "true" emergencies or for primary care.

The current trend in ER utilization indicates that there are two views of health care: traditional and contemporary. The traditional view emphasizes a patient's reliance on his private physician and supports the use of the ER for "true" emergencies.* The contemporary view of health care maintains that the availability of medical services when needed is more important than an ongoing relationship with a private physician.[21] Recent studies of ERs throughout the country have established five patterns of utilization:

1. One third to one half of the patients who use the ER can be classified as having nonemergent conditions.[15]
2. The ER offers a source of "anonymous" medical care.[18] In addition, the ER has a psychological attractiveness in that hospital ERs appear to patients to be an "ever-open, high-status" source of medical care.[3]
3. Most people consider the ER a substitute rather than a primary central source of care. Many times patients go to the ER because they do not expect their physician to be available.[3,18,19,21]
4. Medicaid coverage and poor health status contribute to ER utilization.
5. Patient utilization is based on the economic concept of utility. Present use of the ER is a reflection of consumer demand.[18]

The fifth pattern is perhaps the basic theme underlying all ER utilization patterns. The emergency room is particularly accessible, offering 24-hour availability to any patient who believes his condition to be urgent but cannot find or does not know of alternative sources of care.

Materials and Methods

This study involved examination of Hermann Hospital ER records from January 1976 to January 1977. Approximately 20 cases from each month, five from each week, were sampled randomly. From the 232 cases investigated, the following characteristics were noted:

1. Patient age, sex, and race
2. The time the patient came to the ER
3. The distance the patient lived from the hospital
4. Patient economic status
5. Patient's medical needs
6. Patient's chief complaint
7. Whether the patient was admitted
8. The referral, if any, given to the patient

This study also included 30 hours of observation in the Hermann Hospital ER.

The data obtained from the records suggested that the individual most likely to use the Hermann Hospital ER is a black woman between ages 13 and 25 years, complaining of abdominal pain. The most common distance that patients live from the ER is six miles and the most popular time of day to come to the ER is between 4 and 9 PM. The data also offered patterns of patient utilization of the emergency room and patterns of ER response to patients.

Results

How Patients Utilize the Hermann ER

Five parameters were selected from the records for comparison and analysis of patient utilization of the Hermann Hospital ER: (1) time of day; (2) distance from the ER; (3) sex, race and age; (4) economic status; and (5) chief complaint.

The time of day patients came to the ER was divided into five periods: (1) 8 AM to 12 noon; (2) 12:01 PM to 3:59 PM; (3) 4 PM to 9 PM; (4) 9:01 PM to 12:59 AM; and (5) 1 AM to 7:59 AM. Fig 1 displays the patient distribution for the time periods. From the table, it is evident that more people came to the ER between 5 PM

*In this study and in most of the literature cited, unless specified otherwise, "emergent" cases or "true" emergencies refer to situations that demand immediate care or that cannot wait until the next day. Nonemergent cases are those that can be postponed until the next day or can be considered primary care and best treated in an outpatient facility.

1. *Time of patient arrival and "true" emergencies vs primary care.*

	Selected Time Groups				
	8 AM–12 PM	12:01 PM–3:59 PM	4 PM–9 PM	9:01 PM–12:59 AM	1 AM–7:59 AM
% Patient Sample (223 Persons)	18	19.7	30	18.3	14
% "True" Emergencies	30	34.1	37.3	17.1	35.5
% Primary Care	70	65.9	62.7	82.9	64.5

2. *Patient distribution and distance from Hermann Hospital.*

	Distances from Hospital						
	2-Mile Radius	4-Mile Radius	6-Mile Radius	8-Mile Radius	10-Mile Radius	10+ Mile Radius	Out of Houston
% Patient Sample (185 Persons)	11	18	22	11	12	13	13

3. *Age distribution.*

	Age Group				
	12 Years and Younger	13–25 Years	26–45 Years	46–60 Years	61 Years and Older
% Patient Sample (232 Persons)	14	34	27	13	12

4. *Male-female distribution, and race.*

	No	% of Total Patients
Black males	40	18
Nonblack males	55	24
Total males	95	42
Black females	78	35
Nonblack females	52	23
Total females	130	58

Medicine		
*"Medicine" Complaint	No	% of Total (68)
1. Abdominal pain (and gastro-intestinal disturbances)	25	36.8
2. Colds, flu, sore throat, bronchitis, chills	16	23.5
3. Headache	8	11.8
4. Weak, dizzy, faint	8	11.8
5. Chest pain and shortness of breath	7	10.3
6. Misc. (infected incision sites, insect bites)	4	5.9

*Many patients gave two complaints. In these instances, both complaints were recorded.

5. *Patient economic status*

	Sources of Patient Emergency Room Payment				
	Patients With Medicaid or Medicare	Patients With Worker's Compensation Insurance	Patients With Income and Insurance and Patients Reporting Insurance Only	Patients Reporting Monthly Income Only	*NCE Patients, With No Income, Unable to Pay
% Patient Sample (216 Persons)	24	8	49	12	7

*Non-clinic eligible

Note: Average income = $748.46 (±481.30 SD).

and 9 PM than any other time.

The distance patients lived from the ER was determined from a Houston-area road map with concentric circles enclosing two-, four-, six-, eight-, ten- and more-than-ten-mile radii from Hermann Hospital, which is centrally located. Patients whose addresses were recorded as being in another town or of being outside the Houston area were grouped together in an "out-of Houston" distance category. The groups were organized in this fashion to best emphasize accessibility to Hermann Hospital, whereas zip codes and census tracts do not offer such information. Fig 2 illustrates the various distances and the percent total of each group. Data show nearly equal patient distribution among the seven groups. Houston expressways allow relatively short travel times, thus increasing the accessibility of Hermann Hospital. The distance of a patient's residence from Hermann Hospital, however, does not necessarily indicate the distance the patient had to travel to the ER, a discrepancy of particular relevance to the "out-of-Houston" group.†

Although 1976 statistics show Houston's racial distribution to be 64% white, 24% black, and 12% Latin, information from Hermann Hospital indicates that 53% of the hospital's emergency room patients are black and 47% "nonblack." The nonblack designation indicates white, Latin, and "other" patients.‡

The 1976 figures also showed the average age of Houston residents to be 25.8 years, while the average age of Hermann Hospital ER patients in this study was 31.98 years[8] (standard deviation ±20.9 years). These figures suggest that Hermann Hospital ER patients represent a skewed distribution of Houston residents. Fig 3 suggests that persons between the ages of 13 and 25 years (34% of patient sample) use the emergency room more frequently than each of the other age groups, the ages between 26 and 45 years being the second most represented age group (27% of the sample). The remaining age groups are represented in approximately equal proportions.

The male/female distribution in this study was 42% male, 58% female.

The economic status of Hermann Hospital ER patients was determined by the monthly income and insurance information offered by emergency room records. Five economic patterns emerged from the data: (1) patients with Medicare and/or Medicaid; (2) patients with worker's compensation insurance; (3) patients with a monthly income and insurance given, in addition to patients whose record only indicated possession of insurance; and (4) patients with no insurance (but receiving a monthly income) or patients paying their ER fee by check (the records of 20% of the patients in this category did not specifically indicate that the patients were without insurance); (5) patients with no income, patients classified as nonclinic eligible (NCE), and patients who indicated that they were unable to pay for ER services (Fig 5).

Records also revealed a variety of medical complaints among the randomly selected cases. Fig 6 displays groups of complaints and the frequency in which they occurred. An important difference exists between the types of complaints constituting the Major Trauma and Other Emergency classifications and the remaining categories. This distinction is based not only on the nature of the complaint, but also on the triage given the patient. There are four classifications: nonemergent, acute, urgent, and DOA (dead on arrival). Providing exact definitions for each classification is almost impossible (except for DOA). The difficulty lies in the fact that a patient's medical status is determined by the medical expertise of the nurse assigned to triage at any particular time. This arrangement, common to many ERs, introduces another variable into this study and all studies of ER utilization. To minimize this variability in triage inherent in any ER and to further delineate true emergencies from primary care, the chief complaint groups illustrated in Fig 6 were described in the following manner:

1. Major trauma cases thought to be emergent and acute in addition to those classified nonurgent, but who subsequently were admitted. This group includes automobile accident injuries, pedestrian-automobile injuries, gunshot wounds, and severe burns.

2. Other emergency cases termed acute, emergent, and nonemergent, but admitted to the hospital. This group includes patients with acute asthma attacks, acute urinary and gastrointestinal illnesses, pediatric emergencies, acute allergic reactions to penicillin, sickle cell crisis, cardiac emergencies, acute labor, and drug overdoses.

†The introduction of "Life Flight," a patient transport service instituted in August 1976, was not considered in this study, although the program probably affected data in the "out-of-Houston" distance group.

‡This method of classification was chosen because many times "white" would be indicated on the ER record when the patient's name was Spanish and/or the physician's report indicated that the patient was Latin.

6 *Patient reasons for going to Hermann Hospital emergency room.*

Patient Complaints	"True" Emergency	Primary Care	Major Trauma	Minor Trauma	Other Emergency	Medicine	Ob-Gyn	Dermatology
% Patient Sample (232 Persons)	31	69	11.1	19.9	19.9	26.8	4.4	1.8

Patient Complaints	Eye-Ear-Nose	Psychiatry	Neurology	Oral	Orthopedics	Miscellaneous
% Patient Sample (232 Persons)	4.0	0.9	0.4	1.8	3.5	5.5

7. *Race and chief complaint*

Race and True Emergencies

	No	Black % of Chief Complaint	No	Nonblack % of Chief Complaint
Major Trauma	13	52	12	48
Other Emergency	28	62.2	17	37.8
Total Number	41		29	
		Black		Nonblack
Total % of True Emergencies		58.6		41.4

Race and Primary Care

	No	Black % of Chief Complaint	No	Nonblack % of Chief Complaint
Minor Trauma	20	44.4	25	55.6
Medicine	34	55.7	27	44.3
Ob-Gyn	5	50	5	50
Dermatology	2	50	2	50
Eye-Ear-Nose	5	55.6	4	44.4
Psychiatry	0	0	2	100
Neurology	1	100	0	0
Oral	2	50	2	50
Orthopedics	6	75	2	25
Miscellaneous	4	33.3	8	66.7
Total Number	79		77	
		Black		Nonblack
Total % of Primary Care		50.6		49.4

8 *Economic status and race.*

	Black % of Total (214)	Nonblack % of Total (214)	Difference
Medicaid and/or Medicare	18	6	12%
Worker's Compensation	3	4	1%
Income and Insurance	22	28	6%
Income with No Insurance	7	5	2%
Unemployed, No Insurance, No Income, NCE	4	3	1%

9 *Means of payment and race.*

Means of Payment	No	Black % of Total (214)	No	Nonblack % of Total (214)
Medicaid and/or Medicare	38	76	12	24
Worker's Compensation	7	44	9	56
Insurance and Income	47	44	61	56
Income with No Insurance	14	56	11	44
No Means of Payment	8	53	7	47
Total Number	114		100	

% of Black Patients with Means of Payment: 92.9
% of Nonblack Patients with Means of Payment: 93

10. *Black and nonblack ER utilization and arrival times.*

	Arrival Times 8 AM–12 PM	12:01 PM–3:59 PM	4 PM–9 PM	9:01 PM–12:59 AM	1 AM–7:59 AM
Black Patients (% of Sample at Given Times)	53	50	52	61	45
Nonblack Patients (% of Sample at Given Times)	47	50	48	39	55

3. Minor trauma cases classified nonemergent presenting minor injuries, lacerations, sprains, fractures, and burns. The remaining chief complaint categories illustrated in Fig 6 were determined by nonurgent triages. The graph can be interpreted further as representing two types of emergency room utilization: (1) "true" emergencies (Major Trauma and Other Emergency); and (2) primary care (Minor Trauma, Medicine, Ob-Gyn, Dermatology, Ear-Eye-Nose, Psychiatry, Neurology, Oral, Orthopedics, and Miscellaneous).

The complaints most commonly given to the ER nurse constitute the Medicine category. Fig 7 presents the various subdivisions of this category and their percent of the total number of patients. The Miscellaneous group proffered diverse reasons for emergency room visits, such as "for vasectomy," "for cast repair," "for cast change," "to receive packed cells," "to repeat films," "for chemotherapy," and "sore staples in ear."

The Ob-Gyn portion of Fig 6 represents ten cases, three of whom came to the ER because of sexual assault. Statistically, the numbers of true emergency and primary care patients, shown in Fig 6, are significantly different ($t = 1.81$, $p < .05$).

The five parameters of utilization (time; distance from Hermann Hospital; race, age and sex; economic status; and chief complaint) have several important interrelationships. From Fig 6 it was concluded that 31% of all patients use the ER for true emergencies and 69% come to the ER seeking primary care. Fig 1 depicts the percentage of true emergencies and the percent primary care for each time period. All but one time range (9:01 PM–12:59 AM) approximates the 30%/70% ratio of true emergency/primary care found in the patient sample. The time period from 9:01 PM to 12:59 AM comprises 17.1% true emergencies and 82.9% primary care cases and contains half of the Medicine complaints.

Racial data were considered to determine if there were differences in ER utilization by blacks and nonblacks. Fig 7 displays the distribution of black and nonblack ER utilization for true emergencies and primary care. The values in the table indicate that a 17.2% difference exists between black and nonblack ER utilization for true emergencies, but only a 1.2% difference exists between black and nonblack utilization of the ER for primary care.

Black and nonblack patterns also were examined to reveal trends in payment of emergency room fees. The same economic groups presented in Fig 5 are listed in Fig 8. This table illustrates that black and nonblack payment sources differ at most by 12%. Fig 9 displays the percentage of black and nonblack users within each economic group and confirms that 92.9% of all blacks and 93% of all nonblacks have some means of paying for ER services. The difference most readily observed from Fig 9 is that 76% of all patients who use Medicare or Medicaid to pay for ER services are black and 24% are nonblack.

Fig 10 presents the various time periods as independent variables and the percentage of each category attributable to black and nonblack patients as dependent variables. Hypothetically, each time period would have a 50/50 proportion of black and nonblack patients. The graph illustrates that the time period from 9:01 PM to 12:59 AM differs from this ideal ratio more than the other time periods. Sixty-one percent of the patients in this time period are black; 39% are nonblack. In Fig 1, the time period between 9:01 PM and 12:59 AM does not represent the 30/70 ratio of true emergencies to primary care as closely as the other time periods. Fig 11 presents a closer investigation of the 9:01 PM to 12:59 AM time group. The percentage of true emergencies involving black patients in the 9:01 PM to 12:59 AM period indicates that it is somewhat different from the percent of true emergencies for blacks in the other periods. This period also represents a substantially lower percentage of primary care for blacks (34%) compared to that found in the other time groups. Fig 11 also shows that in all periods, black patients contributed more to the number of true emergencies than did nonblack patients.

The ER utilization parameter of distance from the Hermann ER also reveals some important interrelationships between the other parameters of ER use. Fig 12 illustrates the ER patient load during various times. The various distributions displayed by this graph indicate that 62% of the patients lived within eight miles of Hermann Hospital. The distributions in the time from 9:01 PM to 12:59 AM again are slightly different from those of the other periods. Seventy-one percent of the patients reported in this time period lived within eight miles of the hospital, and 29% of the patients lived more than eight miles away.

The severity of a patient's condition may influence his decision about how far to travel to obtain adequate medical care. Fig 13 indicates a 10% difference between the number of true emergency patients living within eight miles of the ER and those living farther away. In contrast,

11. Black patient arrival times.

	Arrival Times				
	8 AM–12 PM	12:01 PM–3:59 PM	4 PM–9 PM	9:01 PM–12:59 AM	1 AM–7:59 AM
% Black in Patient Sample	18	19.7	30	18.3	14
Black Patient % "True" Emergencies	58	60	56	71	55
Black Patient % Primary Care Patients	50	45	49	34	50

12. Patient distances from Hermann Hospital vs arrival times.

	Arrival Times				
	8 AM–12 PM	12:01 PM–3:59 PM	4 PM–9 PM	9:01 PM–12:59 AM	1 AM–7:59 AM
% Patient Sample Within 8-Mile Radius	60	63	57	71	58
% Patient Sample More Than 8 Miles from ER	40	37	43	29	42

13. Patient distance from Hermann Hospital vs chief patient complaints.

	Patient Distance from Hermann Hospital	
	Less than 8 Miles	More than 8 Miles
% of "True" Emergencies in Patient Sample	55	45
% Primary Care Cases in Patient Sample	63	37

15. Age and chief complaint.

Age Group	% True Emergencies	% Primary Care
12 Years & Younger	25	75
13–25 Years	27	73
26–45 Years	38	62
46–60 Years	24	76
61 & Older	43	57

14 Time and age.

	Age Group	8 AM–12 PM	12:01 PM–3:59 PM	4 PM–9 PM	9:01 PM–12:59 AM	1:00 AM–7:59 AM
% Age Distribution	12 & Younger	9	7	23	16	9
	13–25 Years	28	34	26	49	31
	26–45 Years	35	39	20	14	44
	46–60 Years	14	9	13	12	13
	61 & Older	14	11	18	9	3
	Total	100	100	100	100	100

a 25% difference exists between the number of primary care patients living within eight miles of the ER and those living beyond eight miles. The differences between true emergencies and primary care cases suggest that a patient living eight miles from Hermann Hospital is more likely to come to the ER with a true emergency than is a primary care patient living farther than eight miles away. These observations imply that a patient seeking primary care does not consider the nearness or availability of adequate medical care as much as does a patient with an emergent illness. (However, the assumption here is that the patient travels to the emergency room from his home address.)

Fig 14 presents age distribution within each of the time periods. From the graph, 35% of all the patients in the 8 AM to 12 noon time period are between 26 to 45 years of age. This age group represents 39% of all patients in the 12:01 PM to 3:59 PM period and 44% of all the patients in the 1:00 AM to 7:59 AM period. The 13–25 years age group comprised 49% of the patients in the 9:01 PM to 12:50 AM period.

Another important interrelationship is age and chief complaint (Fig 15).

"Minor trauma" classified 54.2% of the 12-years-and-younger group noted in Fig 16. About half of the patients between ages 60 and 89, however, came to the ER with complaints covered by the "Medicine" category.

ER Response to Patients

The ER's response is manifested in three major ways: (1) triage; (2) hospital admission; and (3) referral of the patient to some other form of medical care.

Of 230 patients, 81.3% were classified nonemergent, 14.3% were believed acute, and 4.3% were listed as emergent. No patient was dead on arrival at the emergency room. Although an overwhelming majority of patients was given nonemergent status, 20% of all the ER patients were hospitalized. Interestingly, the nonemergent group included 61% of the total patients admitted. Twenty-six percent of the total number of cases admitted were considered acute, and 13% emergent.

Fig 17 depicts the various referral patterns and percentage of the patient sample each pattern represents. Hospital personnel referred 50.5% of the ER patients to Hermann outpatient clinics. Another 26% were referred to physicians. The physician referral pattern in addition to all the other referral patterns shown in Fig 17 involves ER and "private" patients. Private patients are those whose records list a private physician routinely contacted when his or her patient reaches the emergency room. Patients who do not have private physicians are listed as "ER" patients, a classification not to be confused with earlier usage of that term in this report. Figures describing the two types of patients are somewhat obscured, however by the listing of, say, a gynecologist for a woman needing treatment for an arm laceration, or a home-town physician for a visitor to Houston. Characteristics of the two patient groups are:

1. Twenty percent of the patients observed were referred to a private physician. Of that number, 51% were private patients, although a physician not previously known to the patient might have received the referral.
2. Blacks constituted 39% of the referrals to physicians, although 72% listed no private physician. Nonblacks claimed the remaining 61% of the private referrals, with 68% of that group naming private physicians.
3. Sixty-seven percent of the private physician referrals lived within an eight-mile radius of Hermann Hospital, and 33% lived at least ten miles away.
4. A 54% majority of the ER patients had health insurance, compared to 61% of the private patients who were insured.
5. Patients who claimed no private physician represented a 13/87 true-emergency/primary care ratio. The comparable ratio for the private patients was 17/83.

Discussion

The racial distribution in this study represents nearly a 50/50 ratio between black and nonblack patients. Both racial groups had equal support available for payment of emergency room services, but blacks used Medicaid or Medicare more frequently than nonblacks. Although the Hermann Hospital ER reflected approximately a 50/50 representation of blacks and nonblacks, the distributions of the racial groups should be proportional to Houston's racial distribution, which is 24% black and 76% nonblack. Therefore, in comparison to the population of patients available to the Hermann Hospital ER, a greater percentage of blacks used the ER than did the percentage of nonblacks.

Further speculation can be made in comparing the racial distribution of the city of Houston and the different percentages of black and nonblack patients who came to the ER with true emergencies. As shown in Fig 3, black patients represented a higher percentage of true emer-

16. Age and complaint distribution.

Age and True Emergencies	% of Each Age Group Comprising True Emergencies				
	Ages 12 & Younger	Ages 13–25	Ages 26–45	Ages 46–60	Ages 61 & Older
Major Trauma	25	52.4	37.5	28.6	7.7
Other Emergency	75	47.6	62.5	71.4	92.3
Age and Primary Care	**% of Each Age Group Comprising Primary Care**				
	Ages 12 & Younger	Ages 13–25	Ages 26–45	Ages 46–60	Ages 61 & Older
Minor Trauma	54.2	22.8	30.8	18.2	18.8
Medicine	37.5	49.9	30.8	45.5	50
Ob-Gyn	—	7	10.3	4.5	6.3
Dermatology	4.2	1.8	—	4.5	6.3
Eye-Ear-Nose	4.2	7	7.7	4.5	—
Psychiatry	—	1.8	—	4.5	—
Neurology	—	1.8	—	—	—
Oral	—	3.5	—	—	—
Orthopedics	—	7	5.1	9.1	6.3
Miscellaneous	—	3.5	15.4	9.1	12.5

gencies in each time period than did nonblack patients. Compared to the racial distribution of Houston, it appears that substantially more black patients used the ER for true emergencies than did nonblack patients.

Conclusion

Patient use of the ER exhibited varied utilization patterns. The two most frequented time periods were 4 PM to 9 PM and 9:01 PM to 12:59 AM. Most patients lived four to six miles from the ER. The average age of patients in the sample was 31.98 years (±20.92 years standard deviation.) Ages 46–60 years used the ER more than any other age group for primary care; and ages 61 years and over used the ER more than any other age group for true emergencies. Slightly more women than men used the ER, revealing a 58%/42% patient utilization ratio. Black females were the most commonly seen patients in the ER. The racial distribution in this study consisted of 53% black patients and 47% nonblack patients. Approximately 17% more blacks than nonblacks used the ER for true emergencies. Of the patients, 81% had insurance, 12% had no insurance, and 7% had neither insurance nor income. Approximately 93% of the patients had some means of paying the ER services, with black and nonblack patients having an equal likelihood of paying for ER services. The most common chief

17. Emergency room referral patterns.

Type of Referral/% Patient Sample
Physician/26
Other Hospital/8
Pediatric Clinic/7
Medicine Clinic/6
No Referral/6
Orthopedic Clinic/6
Gynecology Clinic/6
ER Follow-up/6
Surgery Clinic/5
*Departures/4
Neurology Clinic/3
Medicine Screening Clinic/3
Eye Clinic/2
Oral Surgery Clinic/2
Dermatology Clinic/2
Ear-Nose-Throat Clinic/2
Plastic Surgery Clinic/1
Obstetrics Clinic/1
Private Dentist/1
Fracture Clinic/1
Gastrointestinal Clinic/0.5
Chemotherapy Clinic/0.5
Cardiology Clinic/0.5
Plastic Eye Clinic/0.5
Psychiatry Clinic/0.5

*Left ER before examination.

complaints were in the Medicine category, with 50% of all Medicine complaints occurring in the 9:01 PM to 12:59 AM time period.

The ER's response to patients included placing 81% of the patients in a nonemergent category. Twenty percent of all cases were admitted, and 61% of those had been termed nonemergent. Of the ER patients, 50.5% were referred to Hermann Hospital outpatient clinics, and 26% were referred to a physician.

In each of the time periods noted, the ER received virtually equal percentages of black and nonblack patients. However, black patients consistently used the ER more than did nonblack patients. These findings indicate that black patients are more likely than nonblack patients to have a "traditional" view of medical care. Subsequently, nonblack patients are more likely to have a contemporary view of medical care.

ER availability may play an important role in attracting primary care patients to the Hermann Hospital emergency room. The time of day that most patients came to the ER encompasses the hours that a private physician would not be in his office; thus, a patient seeking primary care might believe his physician to be unavailable. Primary care patients in this study did not consider the nearness or accessibility of a primary care source as much as patients with emergent conditions. Why a primary care patient prefers to come to the Hermann Hospital ER rather than seek the help of a private physician, other ERs, or outpatient clinics, poses an interesting question. The answer would be an excellent subject for further investigation.

The last and most important conclusion of this study is that 31% of all patients used the ER for true emergencies and 69% of all patients used the ER for primary care. These findings warrant the acceptance of the hypothesis that patients use the Hermann Hospital emergency room significantly more often for primary care than for true emergencies.

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Susanna Parker, 1916 Hawthorne, Houston, TX 77098.

Ms Parker is a junior medical student at The University of Texas Medical School at Houston. Except for the winners, hers was the only 12th annual *Texas Medicine* Award entry to be requested for publication.

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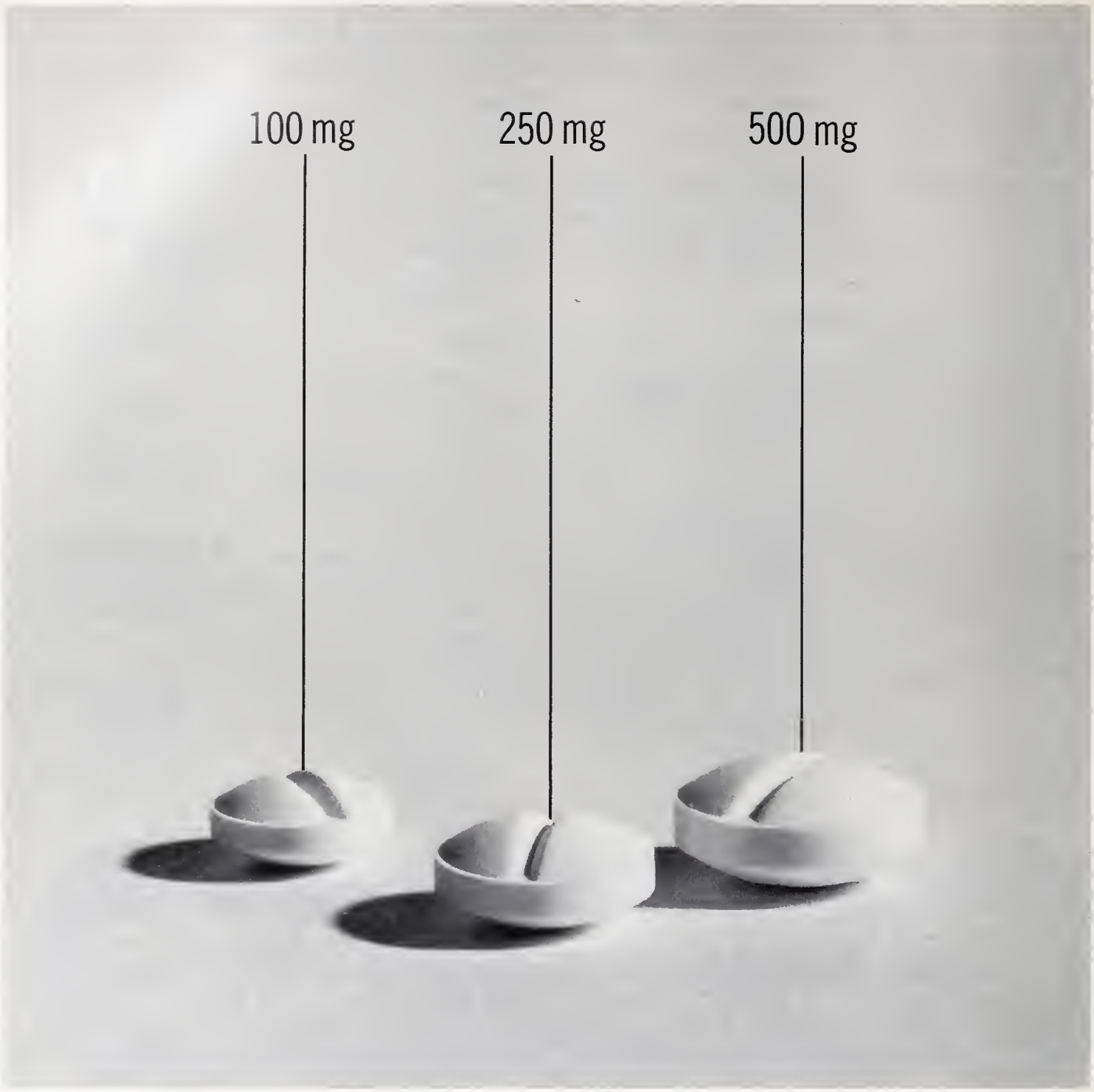

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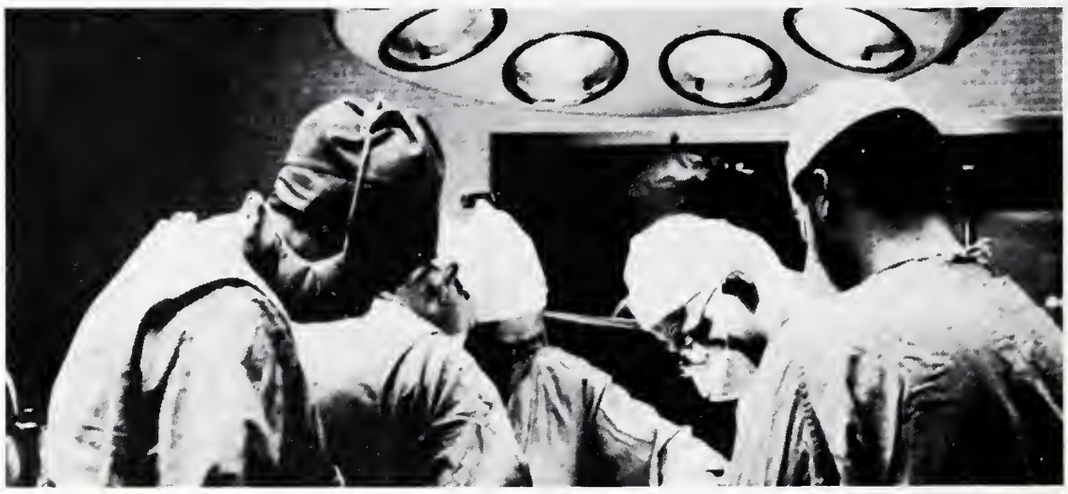

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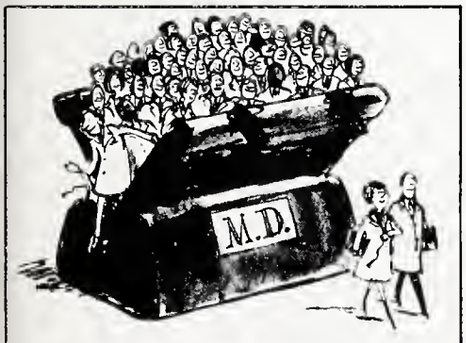

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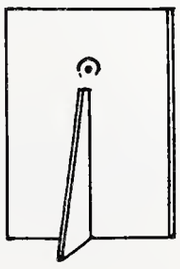

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Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions: Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

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Please see brief summary of prescribing information on facing page.

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. . . in functional G.I. disorders*

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†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:
King, J.C. and Starkman, N M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

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Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective:

May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders); and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon).

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis WARNINGS In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with: autonomic neuropathy; hepatic or renal disease; ulcerative colitis—Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon; hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension; hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis). Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. ADVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response The physician must delineate these Adverse reactions may include xerostomia, urinary hesitancy and retention; blurred vision and tachycardia, palpitations; mydriasis; cycloplegia, increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence, suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. DOSAGE AND ADMINISTRATION Dosage must be adjusted to individual patient's needs.

Usual Dosage: Bentyl 10 mg. capsule and syrup *Adults*: 1 or 2 capsules or teaspoonfuls syrup three or four times daily *Children*: 1 capsule or teaspoonful syrup three or four times daily. *Infants*: ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg. *Adults*: 1 tablet three or four times daily Bentyl Injection *Adults*: 2 ml. (20 mg.) every four to six hours intramuscularly only. NOT FOR INTRAVENOUS USE. MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine™ (bethanecol chloride USP) should be used.

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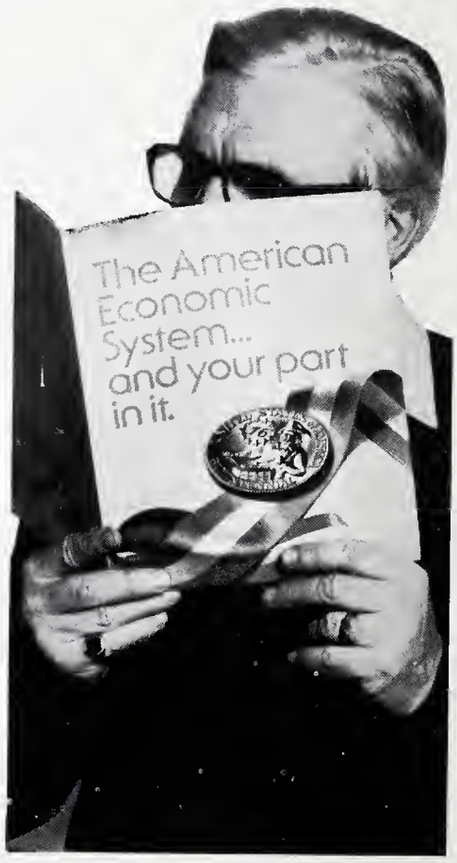

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RECENTLY DECEASED MEMBERS OF THE TEXAS MEDICAL ASSOCIATION

C. E. BOSSHARDT
San Antonio, 1905–1978

J. B. DUCKETT
Dallas, 1938–1978

C. B. GARDNER
Merkel, 1892–1978

D. GREER
Houston, 1889–1978

M. B. GUNTER
Mart, 1926–1978

M. A. JENNINGS
Dallas, 1897–1978

A. F. KIEL
Corpus Christi, 1920–1978

A. W. S. KNITTEL
Houston, 1903–1978

V. H. MAANI
Houston, 1924–1978

J. T. MAKINSON
LaGrange, 1917–1978

L. T. NEILL
Tyler, 1910–1978

W. NICOLAS
Dallas, 1931–1978

W. L. POWERS
Wichita Falls, 1905–1978

F. J. PROUT
Monahans, 1910–1978

S. B. TUCKER
Nacogdoches, 1897–1977

P. C. WILLIAMS
Dallas, 1900–1978

IN MEMORIAM

The Memorial Library of the Texas Medical Association stands as a permanent memorial to physicians who have served their patients, their profession and the people of Texas so faithfully over the years.

The Library ranks as one of the finest in the nation. It is providing more than 10,000 reference requests, 3,500 tapes and cassettes, and 2,500 films each year to physicians, students, and to those seeking information related to medicine and health care. The resources of the Library include 60,000 volumes, 400 tapes, and 300 scientific and lay films; more than 1,300 professional journals are received monthly. Services are provided without charge.

Contributions to the Texas Medical Memorial Library Fund are invested in a permanent fund and are managed by the Board of Trustees of the Texas Medical Association. Dividends are used to purchase new books and to operate the Library.

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DEATHS

C. E. Bosshardt

Carl Eugene Bosshardt, MD, a long-time San Antonio resident, died June 18, 1978. Dr Bosshardt, 72, was a member of Bexar County Medical Society.

The family physician was a native of San Antonio. In 1926 he was graduated from Texas A&M University and in 1928 he received his medical degree from The University of Texas Medical Branch. He interned at Santa Rosa Medical Center, San Antonio.

Survivors include his daughter, Carlene Economy, Dallas; two grandchildren; and a sister.

J. B. Duckett

James Boettcher Duckett, MD, a Dallas anesthesiologist, died June 17, 1978. He was 39.

A native of Houston, Dr Duckett was graduated from Washington and Lee University in Lexington, Va. He received his MD degree from Baylor University College of Medicine in 1964, following which he served an internship at Baylor University Medical Center, Dallas. After completing an anesthesiology residency at the Hospital of the University of Pennsylvania, he entered the US Air Force and was stationed at Carswell Air Force Base, Fort Worth. In 1969 he entered private practice in Dallas and in 1975 he joined the faculty at UT Southwestern Medical School.

Surviving Dr Duckett are his daughter, Kristen Elizabeth Duckett; and sons, Stephen Gray Duckett and Brandon Small Duckett, all of Bourbonnais, Ill; brother, J. Fred Duckett; and parents, Mr and Mrs Harry D. Duckett, all of Houston.

C. B. Gardner

Chester Benton Gardner, MD, a member of Taylor-Jones Counties Medical Society, died May 22, 1978. Dr Gardner, 86, a retired Merkel physician, served as a member of the Texas State Board of Medical Examiners for 13 years.

A native of Vail, Ia, Dr Gardner attended the University of Washington at Seattle, and was graduated from Eclectic Medical College, Cincinnati, in 1918. After serving an internship at Deaconess Hospital, Cincinnati, he began his practice in Bicknell, Ind. He moved to Merkel in 1925.

Dr Gardner is survived by his wife, Laura Brown Gardner, Merkel; daughters, Wilma Ricamore, Bradenton, Fla, and Rebecca Rogers, Gig Harbor, Wash; three grandchildren; and six great-grandchildren.

D. Greer

David Greer, MD, an honorary member of Harris County Medical Society and Texas Medical Association, died July 5, 1978.

A native of Mount Vernon, Ill, Dr Greer, 89, attended the University of Michigan at Ann Arbor. In 1913 he received his doctor of medicine degree from Rush Medical College, Chicago. His internship and residency were at Children's Memorial Hospital, Chicago. He practiced medicine in Houston from 1919 until his retirement in 1958. He was a past president of the Texas Pediatric Society.

Survivors include his wife, Nell Turk Greer; and son, Ronald P. Greer, both of Houston.

M. B. Gunter

Marion Bayles Gunter, MD, 51, a Mart family physician died June 24, 1978.

A native of Pineland, Tex, Dr Gunter was a 1948 graduate of the University of Houston and a 1952 graduate of Baylor University College of Medicine. He interned at Pima County General Hospital, Tucson, Ariz, and Tucson Medical Center. He practiced in McGregor and Mart, Tex, and was a member of McLennan County Medical Society.

Surviving Dr Gunter are his son, Robert Gunter, Waco; daughter, Linda Gunter-Pope, Houston; father, Thomas L. Gunter, Mart; two brothers; and a sister.

M. A. Jennings

Mary Agnes Jennings, MD, a Dallas obstetrician-gynecologist, died May 11, 1978. An honorary member of Dallas County Medical Society, Dr Jennings was a clinical assistant professor at UT Southwestern Medical School.

A native of Johannesburg, South Africa, Dr Jennings, 80, attended Barnard College, Columbia University, and received an MD degree from Columbia University College of Physicians and Surgeons, New York, in 1925. After an internship at Bellevue Hospital Center, she completed a general residency at New York Infirmary and an obstetrics-gynecology residency at Booth Memorial Hospital, New York. She practiced in New York and Houston before moving to Dallas in 1950.

Surviving Dr Jennings are two nieces, Mrs David B. Remick, Houston, and Mrs Ellis B. Colvin, Hunt, Tex;

six grandnephews and five great-grandnieces.

A. F. Kiel

Alois Francis Kiel, MD, a Corpus Christi family physician, died May 18, 1978. He was a member of Nueces County Medical Society.

Born in Milwaukee, Wis, Dr Kiel attended the University of Wisconsin at Madison and Marquette University, Milwaukee. In 1951 he was graduated from Marquette School of Medicine. His internship was at the US Naval Hospital, Bethesda, Md; his residency was at the US Naval Hospital, Corpus Christi, Tex.

Survivors include his wife, Arline C. Kiel; sons, Gregory S. Kiel and Jeffrey S. Kiel, all of Corpus Christi; daughters, Pamela A. Kiel, San Antonio, and Cynthia A. Kiel, Corpus Christi; four brothers; and one sister.

A. W. Schubert Knittel

August William Schubert Knittel, MD, 74, a Houston pathologist, died July 10, 1978.

A member of Harris County Medical Society, Dr Knittel was a long-time resident of Houston and owner of Knittel Diagnostic Laboratory. He was a native of Dallas and attended The University of Texas in Austin. In 1934 he was graduated from Louisiana State University Medical Center in New Orleans.

Survivors include his wife, Dora Cooper Knittel; daughter, Joy Renz; and sister, all of Houston; brother; and a number of nieces and nephews.

V. H. Maani

Vahid Hessari Maani, MD, Spring, died June 12, 1978. Dr Maani, 54, was a member of Harris County Medical Society.

Dr Maani was born in Ishgabad, Turkemanestan, USSR, and attended schools in Iran. He received his medical education at Tehran Medical University. He was a retired doctor colonel from the Persian army. After serving an internship at Memorial Hospital in Houston, he began his family practice there in 1972.

Surviving Dr Maani are his wife, Tolueih Maani, Spring; sons, Ramin Maani and Nezameddin Maani; daughter, Roya Maani, Spring; and two brothers.

J. T. Makinson

James Thurston Makinson, MD, a long-time La Grange physician and surgeon, died June 7, 1978. He was a member of Colorado-Fayette Counties Medical Society.

A native of Oakland, Calif, Dr Makinson, 60, was a 1939 graduate of Stanford University, Calif, and a 1943 graduate of George Washington University in Washington, DC. He served an internship at Passavant Pavilion Hospital, Chicago. During World War II, he served in the US Army Medical Corps in the European Theatre.

Dr Makinson is survived by his wife, Lonita Curtis Makinson, La Grange; daughters, Marley Clark, Montgomery, Ala, and Lisa Gaye Hart, La Grange; sons, Dr E. C. Hart, Ocala, Fla, and J. P. Hart, Aspen, Colo; three grandchildren; mother; sister; and stepbrother.

L. T. Neill

Lex Thomas Neill, MD, 67, Tyler, died June 9, 1978. Dr Neill was a past president of Smith County Medical Society and served in the TMA House of Delegates for four years.

Recipient of the 1974 Commissioner's Award, the highest citation given by the Texas Department of Mental Health and Mental Retardation, Dr Neill served as superintendent at Rusk State Hospital and as psychiatrist at Kerrville State Hospital. In 1975 he assumed leadership of Public Health Region 7 of the Texas Department of Health.

A native of Tyler, Dr Neill was a 1931 graduate of The University of Texas, Austin, and a 1935 graduate of UT Medical Branch. His internship was at Robert B. Green Memorial Hospital, San Antonio.

Survivors include his son, James Neill, Tyler; daughters, Nancy Farr, Whitehouse, Tex; Mary Neill and Susan Neill, both of Austin; two sisters; two brothers; and one granddaughter.

W. Nicolas

Wade Nicolas, MD, 47, died July 7, 1978. He was a member of Dallas County Medical Society.

Born in Nuevo Laredo, Mexico, Dr Nicolas spent his youth in Corpus Christi. After graduation from The University of Texas at Austin in 1953, he completed his medical training at UT Medical Branch. He interned at John Peter Smith Hospital, Fort Worth, and practiced in Chillicothe, Tex, before moving to Dallas in 1973.

Surviving Dr Nicolas are his wife, Maxine Derden Nicolas; sons, Wade Nicolas, Jr, and Mark Hawthorne Nicolas; daughter Kimberly Diane Nicolas, all of Dallas; father and three brothers, all of Corpus Christi.

W. L. Powers

William Leonidas Powers, MD, 72, a member of Wichita-Young-Archer-Jack Counties Medical Society, died June 7, 1978. Dr Powers had served as chairman of the medical department at Wichita General Hospital and was known as "Mr Tennis" in Wichita Falls for his part in developing the tennis programs in city schools.

Born in Woodlake, Ky, he moved to Wichita Falls in 1918. He was a graduate of Baylor University and Baylor University College of Medicine. He served an internship at French and Polyclinic Medical School and Health Center, New York, and residency at Kings County Hospital Center, Brooklyn.

Surviving Dr Powers are his wife, Nan Taylor Powers, Wichita Falls; son, Frank Powers, Dallas; sisters, Mrs John Kay, Wichita Falls, and Mrs Clarence Warrenburg, Phoenix, Ariz; and a brother, Steve Powers, MD, Wichita Falls.

F. J. Prout

Fred James Prout, MD, past president of the Reeves-Ward-Winkler-Loving-Culberson-Hudspeth Counties Medical Society, died April 11, 1978. He was 68.

The retired Monahans physician was born in Newark, NJ, attended the University of Minnesota at Minneapolis, and received his medical degree from the University of Minnesota College of Medical Sciences in 1939. He served an internship and surgical residency at Milwaukee County General Hospital and a surgical residency at Johnston Emergency Hospital, Milwaukee.

Survivors include his sister, Mrs Les Metz, Vero Beach, Fla.

S. B. Tucker

Stephen Blount Tucker, MD, a long-time Nacogdoches physician, died Dec 12, 1977. A member of Nacogdoches County Medical Society, Dr Tucker, 80, had served in the TMA House of Delegates and on the Board of Councilors.

He was a native of San Augustine, Tex, and attended The University of Texas and the University of Virginia. In 1922 he was graduated from the University of Pennsylvania School of Medicine. He interned at St Christopher's Hospital for Children in Philadelphia. Dr Tucker returned to Nacogdoches in 1925 to begin practice with his father and brother. He served as team physician of Stephen F. Austin State University for 41 years.

Survivors include Dr Tucker's wife, Lucille Sharp Tucker, Nacogdoches; sons, Stephen B. Tucker, Jr, Krum, Tex; Frank Tucker, Nacogdoches; and Fred Tucker, Houston; daughter, Mrs John Beall, Norman, Okla; 14 grandchildren; and two great-grandchildren.

P. C. Williams

Paul C. Williams, MD, an honorary member of Dallas County Medical Society and Texas Medical Association, died June 7, 1978.

A long-time Dallas resident, Dr Williams, 78, was an orthopedic surgeon specializing in problems of the back and was the designer of the Williams lumbosacral flexion brace. He organized the first physical therapy department at Baylor University Medical Center, was a founder and president of Gaston Episcopal Hospital, and was a clinical associate professor of orthopedic surgery at UT Southwestern Medical School.

Born in Barnesville, Ohio, Dr Williams attended Ohio State University in Columbus, and was graduated from Case-Western Reserve University, Cleveland, in 1924. He received his medical training at the University of Michigan Medical School, Ann Arbor, and completed a general internship at Blodgett Memorial Hospital in Grand Rapids. He returned to Ann Arbor to hold residencies in surgery and orthopedics at the University Hospital. He began his private practice of orthopedic surgery in Dallas in 1933.

Dr. Williams is survived by his wife, Leonore McQuillan Williams, and daughter, Jody Hagler, both of Dallas; two sisters; brother; and a grandson.

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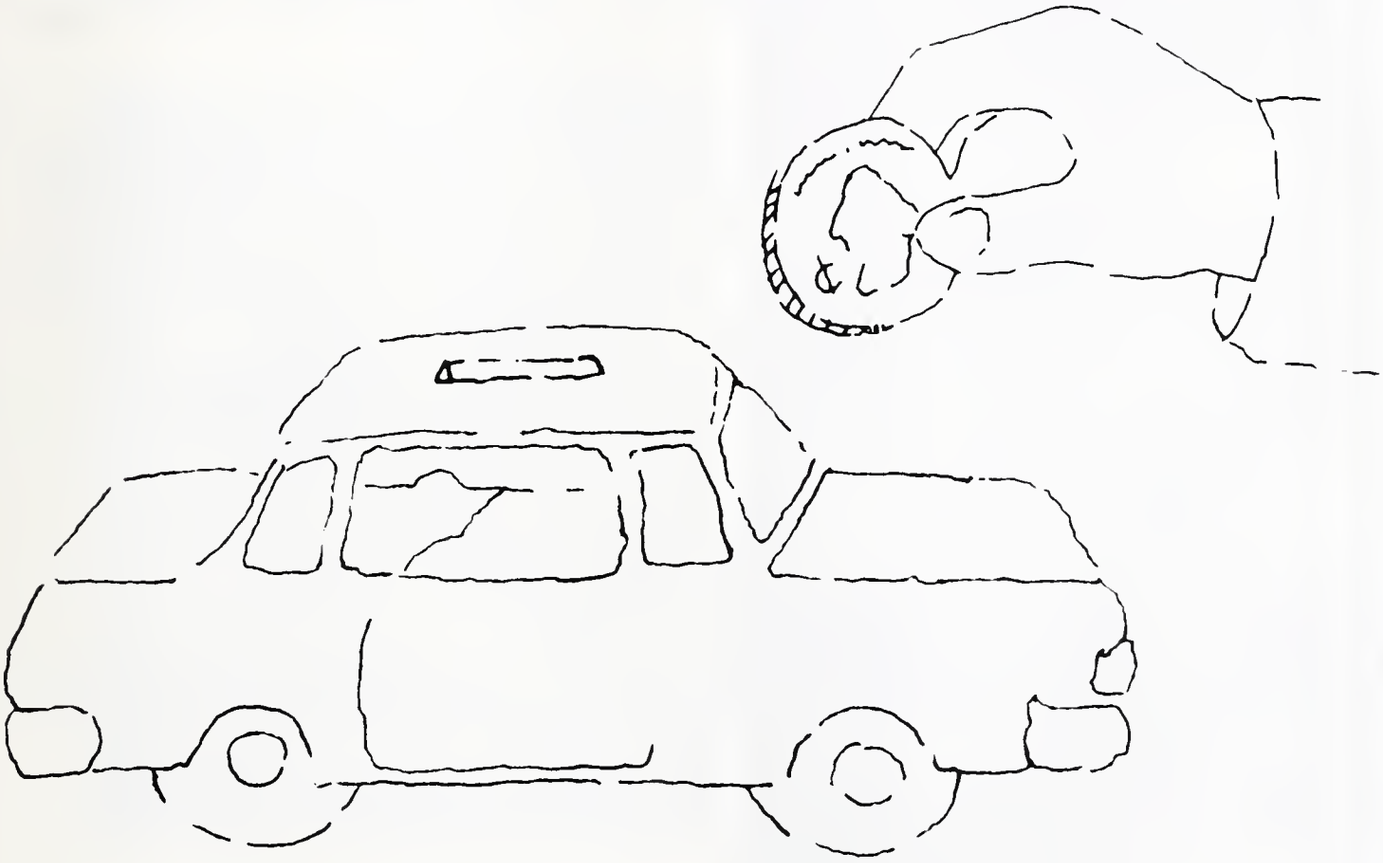

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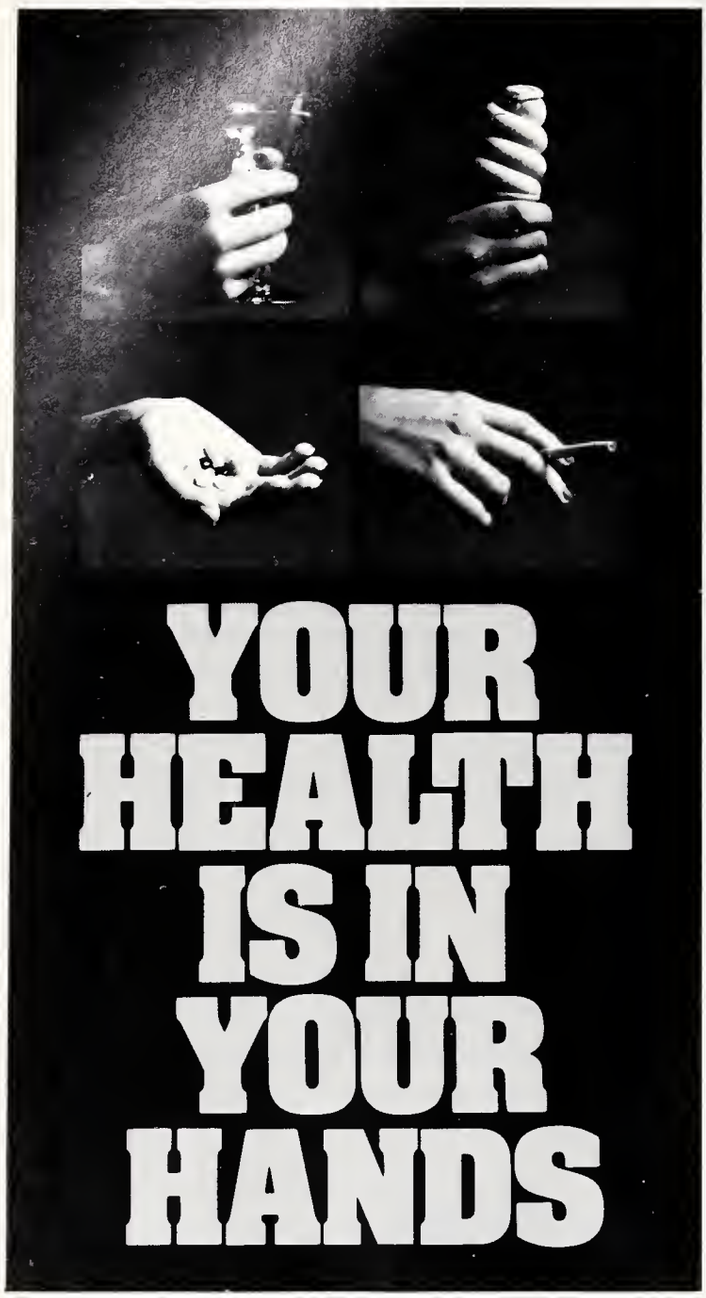

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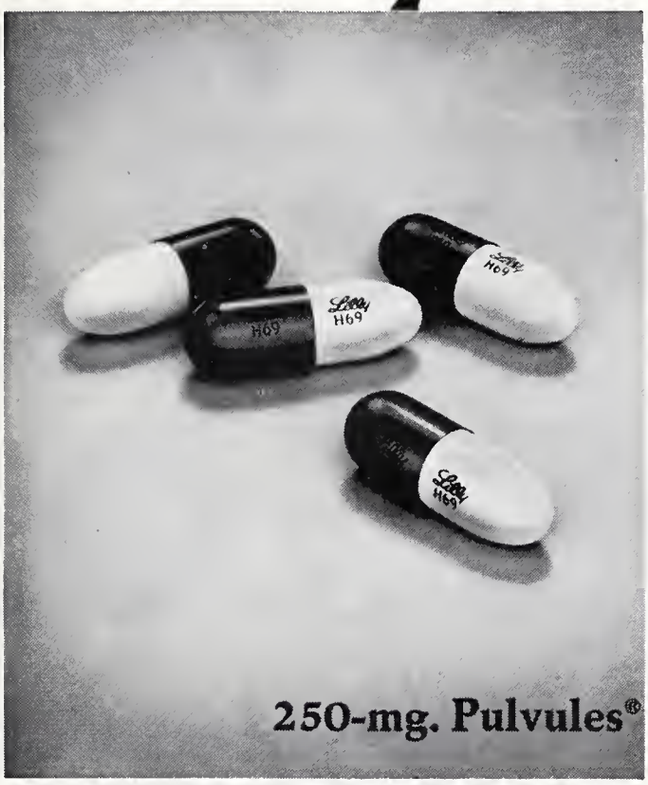

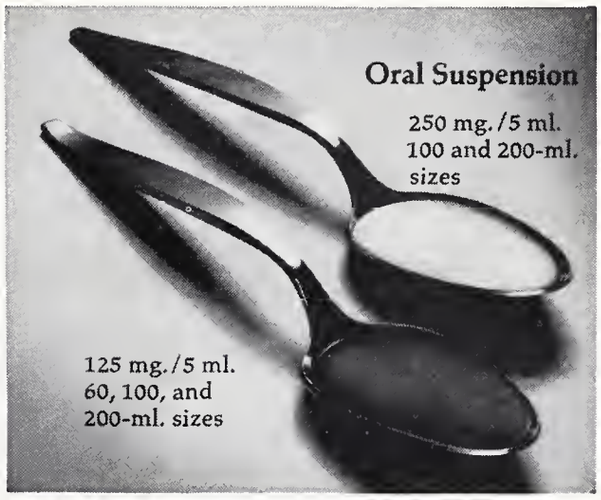

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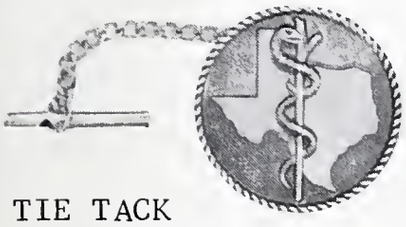

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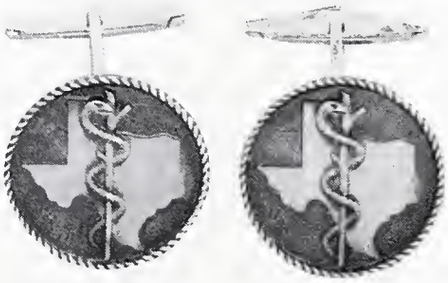

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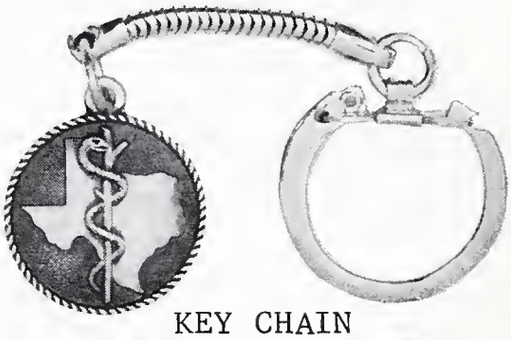

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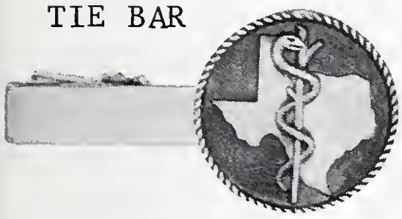

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Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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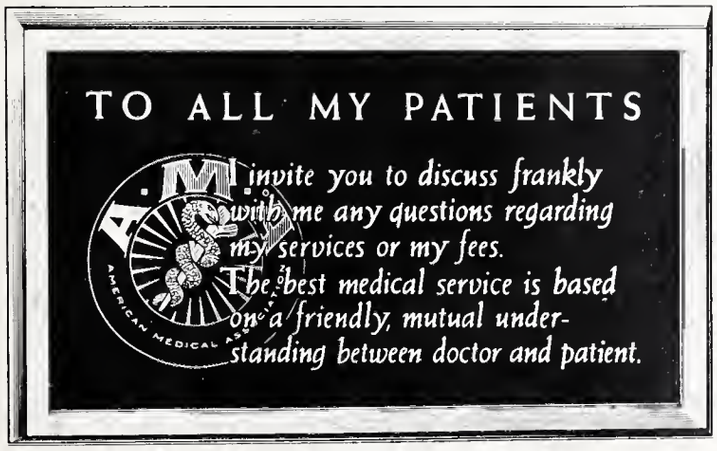

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EMERGENCY DEPARTMENT GROUP, HOUSTON AREA, EXPANDING—choice of salary or fee-for-service with guarantee—malpractice paid—Call 713-861-7942 or write Greater Houston Emergency Physicians Association, 625 West 19th, Houston, Texos 77008.

GENERAL PRACTITIONER NEEDED: To work with general surgeon doing GP work. Excellent opportunity for a doctor desiring family practice work. May start with salary of $45,000 per year negotiable. City has population of 9,000 with trade area of 25,000 to 30,000. Contact Chris S. Cruzcosa, MD, 300 S. 5th Street, Carrizo Springs, Texas 78834, 512-876-5236.

TEXAS NORTHEAST: Emergency physicians. Immediate openings available in established ACEP oriented group. Positions in several communities available. Prefer career-oriented emergency MDs. Additional training and/or experience required. Flexible schedule, fee-for-service with guarantee and usual fringes including malpractice insurance. Write: Emergency Medicine Consultants, 3600 Gaston Avenue, Dallas, Texas 75246, or call 214-823-6850.

EMERGENCY DEPARTMENT DIRECTOR WANTED—Longview, Texas, population 60,000. Two hour drive east of Dallas. Progressive community with beautiful wooded geography and nearby lakes. Need career ACEP MD with ER and administrative experience. Malpractice insurance supplied. Fee for service compensation $72,000 for 20 shifts/month. EHSA, 3600 Gaston, Se. 503, Dallas, Texas 75246; 214-823-6850.

UNUSUAL PRIVATE PRACTICE OPPORTUNITIES NOW AVAILABLE in general practice. Opportunities available in a 158-bed proprietary hospital, physician owned and operated. Medical success in your practice guaranteed by cash of $6,500 per month for a period of six months. Free rent and other benefits also included. Pasadena, Texas, is a progressive city of 150,000 located as a suburb of Houston, Texas, near the Johnson Space Center. Community enjoys high per capita earnings, open staff policies, and unlimited medical opportunities. Applications will be restricted to aggressive and American-trained physicians only. For additional information, write or call Richard Fly, Administrotor, Pasadena General Hospital, 1004 Seymour, Pasadena, Texas 77506. Phone 713-473-1771.

BIG SPRING—PHYCHIATRIST, board certified or eligible. Salary $38,000 to $42,800. Texas license required. Building a better and more dynamic program in state hospital. Ideal family living town of 30,000, good schools, recreation, mild West Texas weather. Call or write Doug Cheney, Personnel Director, Big Spring State Hospital, P. O. Box 231, Big Spring, Texas 79720; 915-267-8216. An equal opportunity/affirmative action employer.

PHYSICIAN WANTED FOR BUSY CENTRAL TEXAS general practice—Opportunity for association. Clinic adjacent to hospital. Charter member of American Academy of Family Practice. Could use FP or internist willing to do general practice. Good income. Close to Houston, Austin, San Antonio. Contact Willis G. Youens, Jr., MD, 105 N. Grohmann, Weimar, Texas 78962; 713-725-8545.

PHYSICIANS: You can find the perfect practice opportunity through Medenco Hospitals, Inc. A variety of settings from rural to metropolitan plus an attractive financial package are available with Medenco. Contact Physician Relations, Medenco Hospitals Inc. P. O. Box 3448, Houston, Texas 77001; Call collect in Texas 713-621-8131.

NEEDED OCCUPATIONAL MEDICINE PHYSICIANS to work on board Mobile Vans for industrial screening in Houston; no night duties. Please call Jamil T. Azzam, MD, at 713-444-8906 and after 7 p.m. at 713-273-1017.

HEMATOLOGIST/ONCOLOGIST: Board certified or eligible to join expanding successful group. Busy hospital and office practice. Houston environs. Excellent salary and fringe benefits. Please reply to Ad-813, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

CARDIOLOGIST-NON INVASIVE: Board certified or eligible to join expanding successful group. Busy hospital and office practice. Houston environs. Excellent salary and fringe benefits. Please reply to Ad-814, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

GP/FP NEEDED FOR BUSY PRACTICE. No OB, no surgery. One full time partner, one half time partner. Fast growing city, beautiful climate, on the border. Salaried the first year, partnership afterwards. Practice grosses over $200,000. Write M. Popek, MD, 520 South 15, McAllen, Texas 78501.

INTERNIST NEEDED—Certified or board qualified internist to do general internal medicine with eleven members of steadily growing, multispecialty practice. Clinic adjoins new, 77 bed, Hill Burton JCACH with recently expanded CCU/ICU to 8 units. Excellent climate, good fishing and hunting, new golf course and skeet range and close to metropolitan areas of Texas. Suggest salary at first with rapid advancement to director/owner in fully incorporated medical association. Send curriculum vitae. Please contact Van D. Goodall, MD, Clifton Medical and Surgical Clinic Association, Clifton, Texas 76634. Telephone 817-675-8621 or home phone 675-3113.

TEXAS PHYSICIANS PLACEMENT. Private fee-for-service practices in many fields with excellent financial backing. We feel as responsible to the physician candidate for placement where he and his family will be happy as we do our client, although our fee is paid by our client. We are a search firm looking for quality, not quantity. Let us help you. Texas openings only. Please send CV with professional and lifestyle preferences to Sanford Smith, Professional Practice Management, Inc., 1102 Kingwood Drive, Humble, Texas 77339.

SEEKING BOARD CERTIFIED GENERAL SURGEON. 30,000 community, 12-man clinic. Texas. Salary negotiable. Reply to Ad-841, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

TEXAS, SAN ANTONIO BASED EMERGENCY PHYSICIAN group expanding. Immediate openings for career oriented emergency physician in several communities. Will consider part-time, flexible schedule. Call or write: Emergency Physicians Associates, 730 North Main, Suite 624, San Antonio, Texas 78205. 512-222-0746 or 224-9067.

EXPERIENCED PRIMARY CARE EMERGENCY PHYSICIANS—Excellent locations; ACEP oriented group. Guaranteed income; full fringes; post graduate education a must. Directorships—staff positions available immediately. Contact: MEDSECO, Emergency Medicine Division, 12605 East Freeway, Suite 608, Houston, Texas 77015; 713-451-2222 or send resume. You will receive immediate response with details.

EXPANDING GROUP NEEDS SPECIALISTS in cardiology, obstetrics, pediatrics, family practice, neurology and radiology. Enjoy practicing medicine with our 28-man multispecialty group located in a friendly city of 100,000 people in north central Texas. Close to everything, but away from big city problems. If you want to know more about this long established group (1919) whose city has a booming economy, call collect Dr. David M. Pogue at 817-766-3551. Wichita Falls Clinic, 501 Midwestern Parkway, Wichita Falls, Texas 76302.

EMERGENCY PHYSICIANS NEEDED by progressive, expanding group. Attractive salaries, flexible scheduling, malpractice provided. Positions available throughout Texas as well as other areas of the sunbelt. For additional information contact Emergency Medicine Physicians Associated, P.O. Box 36443, Dallas, Texas 75235 or call collect 214-350-4991.

PREVENTIVE MEDICINE. Do stress conditioning and set up exercise and diet programs tailored to executive needs. Prime Houston location. We have other openings in family practice, orthopedics, OB-GYN, internal medicine and research. Contact Marilyn Blaker, MEDEX, 5805 Richmond, Houston, Texas 77057, call collect 713-789-1550.

FAMILY PRACTITIONERS WANTED: Investment opportunity for two or three family practitioners. Take over new medical building with eight examining rooms, lab and x-ray. Excellent practice area in Houston. Contact Ad-842, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

PHYSICIANS WANTED—progressive hospital in East Texas. Contact Paul Bennett, Administrator, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647. Telephone 214-845-2281.

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TEXAS: DALLAS-FT. WORTH. Primary care physicians needed for established group expansion. Excellent opportunity, guaranteed income, full fringes. Candidates must be career-oriented MDs, with experience in critical care. Call or send resume: MEDSECO, Emergency Medicine Division, 12605 East Freewoy, Suite 608, Houston, Texas 77015; or call 1-800-231-7888 Texas or Canada 713-451-2222.

A PHYSICIAN WITH TEXAS LICENSE is wanted to practice general medicine at the NTSU Student Health Center. Forty hour week Monday-Friday with minimal call duty. Salary is negotiable. Good fringe benefits. Please contact Sheila Meyer, Administrative Officer of the NTSU Student Health Center, P.O. Box 5158, Denton, Texas 76203. Telephone 817-788-2331. We are an equal opportunity/affirmative action employer.

WANTED: FAMILY PRACTICE PHYSICIAN for small community in Central Texas, 30 bed hospital. Guaranteed income and free clinic space for the first year. Nurse and office assistant for six months. Total community support, excellent schools and churches, lower cost of living, excellent recreationol areas. Quality of life simple and easy. Contact: Administrator, Hubbard Hospital, P.O. Box 308, Hubbard, Texas 76648.

MEDINA COUNTY AND HONDO, TEXAS. An excellent opportunity for a young physician to establish a practice. The local physicians will make you an outstanding offer. Contact: John W. Meyer, MD, Medina Medical Management Corporation, 602 31st Street, Hondo, Texas 78861; telephone 512-426-3054.

PSYCHIATRIC RESIDENCY IN APPROVED three-year program. Effective connections with universities, medical schools, private clinics and community centers. Outstanding faculty and programs. Stipends with Texas license are $17,000, $18,000 and $19,000 per year with additional fringe benefits. For full information, write to: Anthony P. Rousos, MD, Director of Residency Training, Austin State Hospital, 4110 Guadalupe Street, Austin, Texas 78751.

CHILD PSYCHIATRY RESIDENCY may be taken before or after Adult Psychiatry training. Academic program in child development, family therapy, genetic and metabolic disorders, behavior therapy, group therapy, psychopharmacology and ethology. Basic clinical orientation in child development with intensive individual supervision in psychoanalytic and eclectic modalities and pediatric neurology. Research opportunities in genetic and metabolic disorders, child development, linguistic anthropology, community services, and other fields. Excellent opportunities in teaching administration, inpatient and outpatient clinical programs. New 60-bed inpatient unit for children. Liaison with graduate schools, medical school and community programs. Stipends: first year, $17,000; second year, $18,000; third year, $19,000; fourth year, $20,000 with additional fringe benefits. Contact Anthony P. Rousos, MD, Director of Residency Training, Austin State Hospital, 4110 Guadalupe, Austin, Texas 78751.

INTERNIST AND/OR OCCUPATIONAL HEALTH PHYSICIAN, board certified or qualified, needed immediately by multispecialty group to practice generol internal medicine including some company physicals, in rapidlv expanding satellite clinic. Salary negotiable. Excellent fringe benefits. Medical schools, teaching and research opportunities in adjacent Texas Medical Center. Send CV to P.O. Box 20128, Houston, Texas 77025.

SEEKING FAMILY PRACTITIONER OR INTERNIST for limited practice in East Texas; 55 years or older. Combination salary and production. Twenty-eight physician multispecialty group; two open staff hospitals. City population 58,000; large and small industry, forestry and agricultural community. Personal interviews may be arranged. For additional information, contact AD-853, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

RADIOLOGIST—TRAINED IN angiography, CT scanning, and ultrasound, an interest in nuclear medicine would be helpful, to fill opening in 5 man incorporated group with hospital and office practice in Central Texas. Compensation competitive. Please reply to Ad-847, TEXAS MEDICAL, 1801 North Lamar Blvd., Austin, Texas 78701.

SURGEON, ANESTHESIOLOGIST, CARDIOLOGIST: 19-doctor group in growing city of 70,000. New clinic building adjacent to new hospital. Excellent recreation area. $60,000 guaranteed, no limit, no buy-in, liberal fringes. Send CV to John Murphy, Administrator, West Texas Medical Associates, 3555 Knickerbocker Road, San Angelo, Texas 76901.

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GENERAL INTERNISTS AND INTERNISTS WITH SUB-SPECIALTIES in chest diseases, infectious diseases and rheumatology needed for Fort Worth multi-specialty group. Competitive salary plus excellent fringe benefits or percentage of gross arrangement, if preferred. Excellent hours. Early partnership status. Contact Henry V. Birdwell, Jr., MD or Bryan Charles at 817-338-4747, 1200 Summit Avenue, Fort Worth, Texas 76102.

CHAIRMAN, DEPARTMENT OF FAMILY MEDICINE: UTMB is accepting applications/nominations, from individuals with demonstrated competence as an educator and academician for the position of Chairman of a well-established and growing program in family medicine. Applicants must possess an MD degree and the ability to obtain licensure in Texas. Board certification in a primary care specialty and prior administrative experience are preferable but not required. Individuals with faculty appointments in primary care departments other than family medicine are encouraged to apply. Send applications with a current curriculum vitae to: A. R. Remmers, Jr., MD, Department of Internal Medicine, P.O. Box 146, The University of Texas Medical Branch, Galveston, Texas 77550. All applications must be received by November 1, 1978. UTMB is an affirmative action/Title IX employer.

WANTED: PEDIATRICIAN. New area in Houston; excellent facilities, near hospital, etc. No other pediatrician. Please reply to Ad-850, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

TEXAS—Austin Pediatric Education Program: PL2, PL3 positions available July 1, 1979. Excellent community program. Super city to live in. Inquiries to: James C. Sharp, Jr., MD, Director of Pediatric Education, Fifteenth Street and East Avenue, Austin, Texas 78701.

SUPERINTENDENT: Big Spring State Hospital. Physician, licensed to practice in Texas. Certified or board eligible in psychiatry and must possess administrative ability. Base salary is $40,600/yr. with house ond utilities provided. Up to $3,000 additional salory may be granted by the Commissioner of TDMHMR and on additional $1,000 compensation for board certification. Fringe benefits include vacation, sick leave, and usual state benefits including a retirement program. Legal protection provided by state law. Applications must include a professional resume and must list no less than three references. Applications must be addressed to: John J. Kavanagh, MD, Commissioner, Texas Department of Mental Health and Mental Retardation, Box 12668, Capitol Station, Austin, Texas 78711.

SUPERINTENDENT: Rusk State Hospital. Physician, licensed to practice in Texas. Certified or board eligible in psychiatry and must possess administrative ability. Base salary is $40,600/yr. with house and utilities provided. Up to $3,000 additional salary may be granted by the Commissioner of TDMHMR and an additionol $1,000 compensation for board certification. Fringe benefits include vacation, sick leave, and usual state benefits including a retirement program. Legal protection provided by state law. Applications must include a professional resume and must list not less than three references. Applications must be addressed to: John J. Kavanagh, MD, Commissioner, Texas Deportment of Mental Health ond Mental Retardation, Box 12668, Capitol Station, Austin, Texas 78711.

ORTHOPEDIC SURGEON WANTED, board eligible or board certified, to join two other orthopedic surgeons in 28 physician multispecialty group in East Texas. Salary first year, equal compensation second year, associate third year. Two open staff hospitals, Population 58,000; large ond small industry, forestry and agricultural community. Personal interviews may be arranged. For additional information, contact AD-851, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

PSYCHIATRIC RESIDENCY—Terrell State Hospital affiliated with the University of Texas Southwestern Medical School, with Texas license first and second year—$19,000, third year—$20,000, fourth year—$21,000. Without Texas license—$17,600. Accredited for JCAH. Contact Luis M. Cowley, MD, Superintendent, Terrell State Hospital, P.O. Box 70, Terrell, Texas 75160. Approved internship preferred.

POSITIONS AVAILABLE FOR PSYCHIATRIST and for general practitioner, salary range to $46,600, based on experience and training. Fringe benefits include liability protection under state law. Texas license required. Contact A. Samaniego, MD, Clinical Director, Rio Gronde State Center for Mental Health and Mental Retardation, P.O. Box 2668, Harlingen, Texas 78550. 512-423-5077. EOE M/F.

Situations Wanted

PATHOLOGIST, 34, well trained, AP & CP board certified, fellow. Seek relocation anywhere, available now. Call 414-421-7841 or write Ad-824, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

LOCUM AVAILABLE for one or two weeks, anytime. Prefer Houston or suburbs. Well trained FAAFP with twenty years experience able to take over and operate your busy family practice while you holiday. Please write for CV and advise which dates you would like to be away. Please reply to Ad-818, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

ANESTHESIOLOGIST, 36 years old, FMG, FLEX, board eligible (passed part 1). 1½ years in private practice, seeks relocation. Reply with full particulars of location, type of practice, compensation and benefits. University trained. Please reply to Ad-794, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD CERTIFIED GENERAL SURGEON doing fellowship in colon and rectal surgery, and anesthesiologist together available for practice in February 1979. Both Illinois licensed; married with children. Both excellent training and experienced. Wish to move out together. Replies addressed to Rao, MD, 111 E. 20th Street, Lombard, Illinois 60148.

CARDIOLOGIST, board certified in internal medicine, board eligible in cardiology. Well trained in invasive (Sones and Judkins) and noninvosive cardiology. Seeks practice opportunities in association with other cardiologist(s) in Dallas or Houston area. Available July 1979. Contact Ad-843, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

PHYSICIAN ASSISTANTS can help save you (and your patients) time, money, increase patient rapport and compliance, and give you more time to do whot you want to do. August 1978 graduates of AMA approved Bowman Gray Physician Assistant Program, North Carolina, seeking employment in Texas. Couple available to work together or apart. Please reply to Ad-835, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD ELIGIBLE ANESTHESIOLOGIST with over 10 years extensive experience of all types of anesthesia, looking for position for private practice, preferably fee for service, but will consider all offers and locations. Contact Ad-805, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY PRACTICE: 32, completing residency from UTMB, November 1978. Desire salaried position in associateship or group practice in Austin or surrounding area. CV and references on request. Please reply to Ad-837, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

CARDIOLOGIST—Board certified internal medicine, 1977; board qualified cardiology. Trained in cardiac cath, echo, CCU, and stress testing. Interested in position in Houston or environs beginning January 1, 1979. Please reply to Ad-838, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

PEDIATRICIAN, 35, university trained, board eligible, Texas license. Seeks group or hospital based practice city over 200,000 and vicinity. Available December 1978. Please contact E. Garcia, MD, 43-60 Douglaston Parkway, Douglaston, New York 11363; call 212-229-7092.

ANESTHESIOLOGIST, exceptionally well trained and experienced interested in move to Texas. Will be available on October 15, 1978. Fully licensed in Texas and Kentucky. Contact AD-848, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD ELIGIBLE GENERAL AND VASCULAR SURGEON from University of Mass. Medical School Residency Program is seeking group or hospital based practice. Please write to: Vijay A. Mehta, MD, 14 D Brandywine, Shrewsbury, MA 01545; phone 617-791-4621.

FAMILY PRACTICE: FMG, university trained, board eligible. Desires position in a clinic or group practice in Houston, suburban. Please reply to Ad-825, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

DERMATOLOGIST—37, dermatology board certified 1971. Texas temporary license. Looking for practice in Houston. Open to all possibilities. Please reply to Ad-831, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST-CARDIOLOGIST, 30, certified internal medicine and cardiology, seeking clinical medicine, non-invasive cardiology, coronary care procedures, hospital based, solo, group practice. Available immediately. Texas licensed. Please reply R. Shah, MD, 9526 Seaview Court, Brooklyn, New York 11236 or call 212-241-4826 after 6 p.m.

ORTHOPAEDIC SURGEON. Formal residency training completed. FRCS (UK). Texas license with Certificate of Honour. Seeks to join group of orthopaedic surgeons in Houston or Dallas. Salary basis or guarantee for first year. Please reply to AD-849, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

ANESTHESIOLOGIST, FFARCS, FLEX, wide professional and administrative experience, including intensive care, seeks relocation in solo or group practice opportunity in or near Houston, Fort Worth or Dallas area. Presently in a reputed Midwest institution. Contact Vinod Joshi, MD, 4460 Gilmer Lane, Richmond Heights, Ohio 44143. Call 216-383-1244.

WHEN YOU NEED A DOCTOR—Perhaps we can help. If you need an associate or wish to add to your staff, we do professional search and screening (by an MD for MDs). Full information on request. Sunbelt Physician Placement Service, 5500 North Braeswood, #177, Houston, Texas 77096; 713-729-6068.

ABIM—Graduate MIT 1970 and University of Pennsylvania 1974. University of Pennsylvania internship and residency. Completes Yale-New Haven cardiology fellowship July 1979. Desires association with group. Sunbelt Physician Placement Service, 5500 N. Braeswood, #177, Houston, Texas 77096; 713-729-6068.

SUNBELT PHYSICIAN PLACEMENT SERVICE——We try to work in such a manner that the new physician, from the beginning, makes money for you. Full information supplied on request for review by you and your business manager. Inquire "Sunbelt," 5500 N. Braeswood, #177, Houston, Texas 77096; 713-729-6068.

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OFFICE SPACE IN DALLAS—Office suites still available one block from Baylor Hospital in new Medical Center Building, 3801 Gaston Avenue, Dallas, Texas. Pharmacy, laboratory in building. Generous allowance for office improvements. Planning and layout available without cost. Contact Joe Mistrot, 214-328-2761, or write P. O. Box 18237, Dallas, Texas 75218.

MEDICAL BUILDING in San Antonio for sale or lease. 2000 sq. ft. medical clinic in 7 year old building at 1827 Bandera Road. Suitable for all primary care physicians and possibly for two physicians at the same time. Leasing agreement at 30¢ per sq. ft., to include utilities and janitorial service. For information call Irwin Kurtz, MD, 512-696-4233 or Pete Cantu, Realtor, 512-736-4296 or 512-695-8466.

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OPPORTUNITY FOR GENERAL PRACTITIONER: Doctor is moving. Old practice in South Texas, but good also for young doctors. Spanish language a help. Family home and office building for sale or for rent, furnished or unfurnished. Please reply to Ad-828, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

CENTRAL TEXAS: Industrial medicine and general practice for sale. Physician retiring. Modern accredited hospital, good schools, pleasant community. Will sell for 50% current annual gross (approximately $155,000/annually). Low overhead. Terms negotiable. Send resume and date available to Ad-846, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

OFFICE OF RECENTLY DECEASED doctor available in near west side of San Antonio. Five minute drive to Lutheran General Hospital and Santa Rosa Hospital. Excellent for Spanish speaking doctor. Extremely low overhead. For information call Rudy Davila, 512-226-5293, Davila Pharmacy, 1110 El Paso, San Antonio, Texas 78207.

MEDICAL CENTER FOR SALE in Midland, Texas, recently named as 9th in the nation in per capita income. A fully equipped building with 8,432 sq. ft., office space for 6 doctors, lab, treatment rooms, x-ray, business office, and a large attractive reception room. Ideal location on a main thoroughfare, near hospital. Contact Robbie Rucker, Word Sherrill Realtors, 1811 W. Wall, Midland, Texas; 915-683-7002 or 915-682-8321.

FOR SALE: Laguna Vista Clinic, Laguna Vista, Cameron County, Texas. Located in resort-retirement area, five miles from Port Isabel and South Padre Island. Building nine years old, brick and brick veener, 3,069 sq. ft. Has two offices, emergency room, x-ray room with Picker x-ray and six examining rooms, all fully equipped. Area of over 25,000 has only one doctor. Entire property and fully equipped clinic can be purchased for $145,000, 10 percent down, balance over 15 years. Contact A. B. Westbrook, 1821 Palm Blvd., Brownsville, Texas 78520; telephone 512-542-7017.

DALLAS, TEXAS, ST. PAUL HOSPITAL AREA. Physician's office suite available with or without furnishings. Excellent condition, prime location, pharmacy and lab in building. Call 214-358-1717 after 5.

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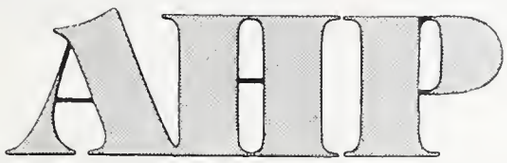

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Medical education can include cost containment

Since nearly two-thirds of health care costs are directly or indirectly controlled by physicians, the individual practitioner is an important force in cost containment. In modern medical care, emphasis appropriately has been on "quality." Inappropriately, the term "cost effectiveness" has struck many physicians as detracting from the best quality care. The two concepts, however, are not at odds. Quality assurance and cost containment are part and parcel of the same package of good medical care.

The practitioner is governed in his clinical judgment by his concept of "quality." It requires only a modification of that thought to integrate the complementary concept of "cost." The physician's task should be to select from among acceptable alternatives for good care the particular approach, method, or treatment which is least costly. In doing so, he further improves the quality of that particular approach, method, or treatment.

A fruitful place to integrate "quality" and "cost" as interdependent parts of clinical judgment is in the undergraduate medical curriculum. The traditional focus there is on development of technical and interpersonal skills. These same skills can be augmented by consideration of their costs to the individual and to society at large. Simple awareness of costs often can help one to select between two approaches which are equally effective. In other cases the medical student begins to learn how to balance cost and effectiveness in the best interests of his patient.

The medical school curriculum already is crowded with courses and content. It generally is neither feasible nor desirable to add a single-shot course in "cost containment." Ideally the preclinical student would gain an overview of health care organization and costs, methods and sources for payment, and the physician's role in affecting costs. During his clinical years he would learn of specific costs for particular approaches to individual patient problems. In residency programs he would then have the opportunity to apply what he had learned as an undergraduate. Incorporation of cost concepts into the development of appropriate clinical judgment would be an important goal of medical education.

In response to the need for effective curriculum modification, the Association of American Medical Colleges (AAMC) is taking a leadership role. With funding from the privately-supported National Fund for Medical Education, the AAMC has sponsored two workshops to which it has invited representative faculty from medical schools across the nation. The University of Texas System has been a participant in this activity. The workshops have been designed to identify a basic curriculum appropriate for student learning about quality assurance and cost containment. As an outcome, the AAMC will shortly publish a primer for medical school faculties to aid in incorporating these concepts into existing curricula.

Medical schools are beginning to meet their responsibility in the training of physicians who enter practice with an effective grasp on cost containment as one facet of high quality care.

James A. Chappell, MD, Houston.

Nov78

TexasMedicine

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Appendicitis in young patients

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***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL. Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE. *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling, and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins, i.e., dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest, concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea, have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status.

Withdrawal symptoms (similar to those with barbiturates, alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal/muscle cramps, vomiting, sweating). Keep addiction-prone individuals under careful surveillance because of predisposition to habituation/dependence. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence, can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function, avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

INJECTABLE. Although promptly controlled, seizures may return; readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported, should these occur, discontinue drug.

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Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure, employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension, caffeine and sodium benzoate for CNS-depressive effects. Dialysis is of limited value.

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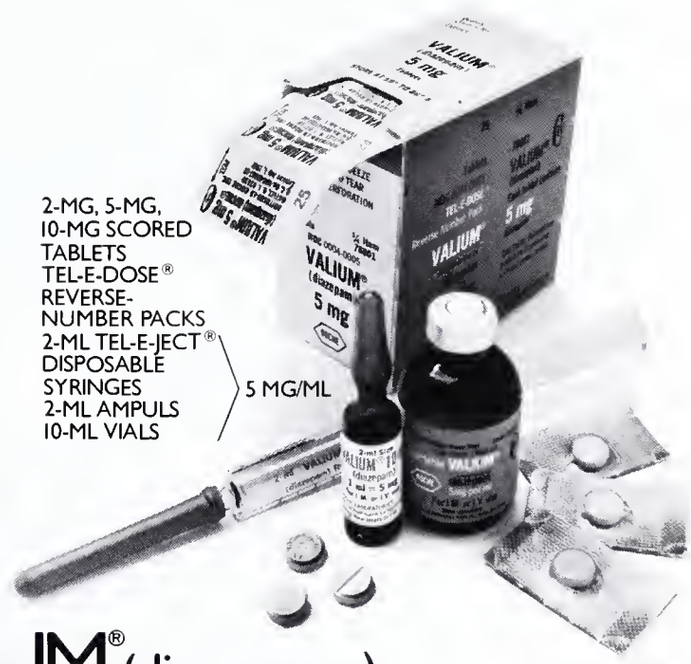

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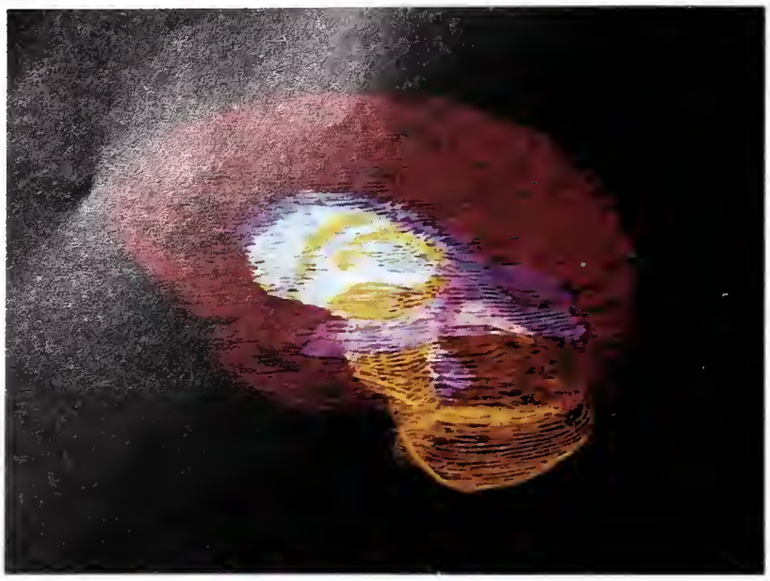

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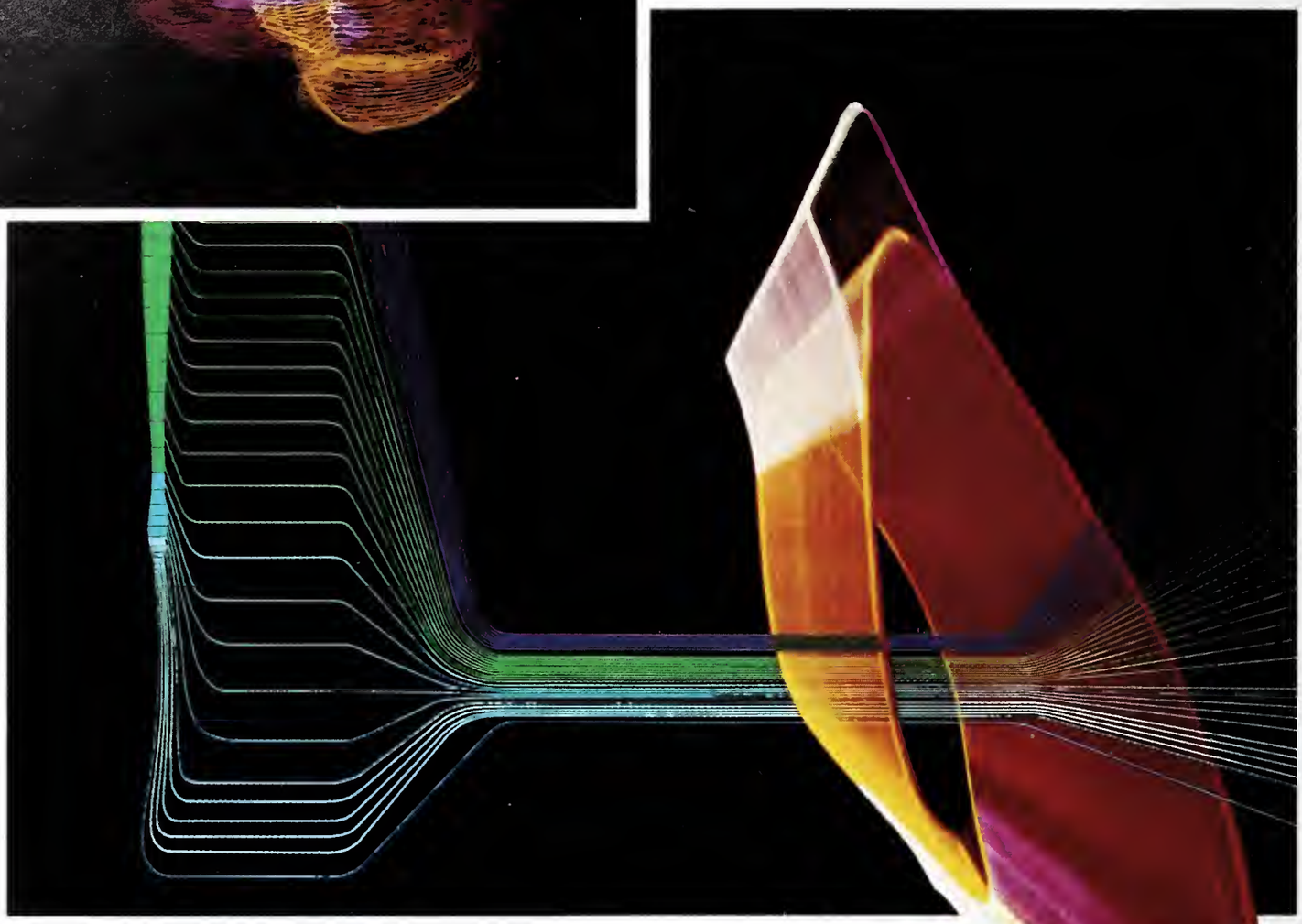

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On the cover

Pregnancy in teenagers carries both physical and social hazards which, though present to some extent, are lesser threats to women who become pregnant after the teenage years. For a report on the problem in Texas, see page 59.

HACKY RASPY YAPPY TICKY WHEEZY GASPY RATTY

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Each fluid ounce contains:

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See following page for brief summary

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Ru-tuss Expectorant

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ANTIHISTAMINIC-EXPECTORANT

Each fluid ounce contains:

Codeine Phosphate	65.8 mg
(**WARNING:** May be habit forming)	
Phenylephrine HCl	30 mg
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Phenylpropanolamine HCl	20 mg
Prophenpyridamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

INDICATIONS: To control cough and to provide symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis and allergic rhinitis.
CONTRAINDICATIONS: Hypersensitivity to any ingredient of the drug. Do not use in patients receiving monoamine oxidase inhibitors.
PRECAUTIONS: Use with caution in individuals with hypertension, cardiovascular disease, diabetes, hyperthyroidism and advanced age. Since drowsiness may occur, patients should be cautioned about driving or operating machinery.
ADVERSE REACTIONS: Occasional drowsiness, cardiac palpitation, dizziness or gastrointestinal upset may occur.
DOSAGE: Adults, one or two teaspoonfuls every four hours as required. Maximum dose, 10 teaspoonfuls in 24 hours. Children 6 to 12 years of age, one-half of the adult dose.

Ru-tuss with Hydrocodone

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With HYDROCODONE

Each fluid ounce contains:

Hydrocodone Bitartrate	10 mg
(**WARNING:** May be habit forming)	
Phenylephrine HCl	30 mg
Prophenpyridamine Maleate	20 mg
Pyrilamine Maleate	20 mg
Phenylpropanolamine HCl	20 mg
Alcohol	5%

INDICATIONS AND EFFECTS: Vasoconstrictor, antihistaminic, antitussive combination for temporary relief of coughs due to colds or flu, acute catarrhal bronchitis, acute tracheobronchitis, laryngitis, cough in pulmonary tuberculosis, unproductive cough of pneumonia, chronic or allergic cough and allergic bronchitis.
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PRECAUTIONS: Hypertension, cardiovascular disease, hyperthyroidism. Causes true addiction. Patients should be cautioned against driving or operating mechanical equipment requiring alertness.
SIDE EFFECTS AND HAZARDS: Large doses may cause hypertension, headache, tachycardia, inability to concentrate, dizziness, lassitude, muscular weakness, palpitations, dryness of mouth, gastrointestinal disturbances, dermatitis.
DOSAGE: Adults, orally 2 teaspoonfuls every 4 to 6 hours. Children 6 to 12 years of age, 1 teaspoonful every 4 to 6 hours. Children 1 to 6 years of age, ½ to 1 teaspoonful every 4 to 6 hours, according to age. Infants: three months, 3 to 4 drops; six months, 6 to 8 drops. Dose for infants and children should not be repeated more than 4 times in any 24-hour period.

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The Impaired Physician: A Personal Concern

A Conference on the Alcoholism Paradigm

1-5:30 p.m., Friday, November 10
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Features:

- 5 free sessions focusing on the alcoholic physician, an example with implications for aiding physicians with other impairments and the public;
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For more information or to register for this TMA-sponsored conference, fill out the coupon below and mail to Alcoholism Conference, Texas Medical Association, 1801 N. Lamar, Austin, Tex 78701.

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TMA House to consider reports and policies

Reports of boards, councils, and committees, resolutions from Texas county medical societies, a TMA policy on negotiations, and legislative policies for the 66th session of the Texas Legislature all face the TMA House of Delegates at its November meeting.

The interim session will convene at 1:30 pm Friday, Nov 10, at the Austin Hilton Inn. Reference committees will convene at the conclusion of the opening session.

The second session of the House will convene at 9 am Saturday and the third session will begin at 8 am Sunday.

Resolutions

Resolutions from county medical societies, councils, and committees about principles of medical ethics, the use of ethics, the use of prescription drugs, the cost of medical care, JCAH inspections, a national cost effective commission, and hospice programs will be considered.

The Council on Medical Education and Hospitals is introducing three resolutions that would support continued state funding of family practice programs, support legislation to provide state funds to defray the educational costs of the medical school teaching hospitals, and oppose legislation that extends the authorization of the National Labor Relations Act to include interns and resident physicians.

Negotiations policy

Delegates will be presented with policy guidelines and procedures for TMA negotiations. According to the proposed policy, "negotiations" is defined as a formal meeting between specifically appointed Association officials and the official representatives of government, labor, an association, an industry, company, or an organized group of individuals, to resolve favorably a matter of significant importance to TMA.

Most negotiation efforts will occur in the areas of governmental regulatory programs and socioeconomics. Examples include proposed or operational governmental programs which interfere in the physician/patient relationship, burden physicians through increased regulatory procedures, limit physician activity, expand the inappropriate activity of nonprofessionals, or penalize physicians collectively through imposition of unfair reimbursement programs.

Under the proposed plan, negotiators will report their findings, agreements, or recommendations to the TMA Executive Board for approval. The Executive Board will report these activities to the House of Delegates for ratification.

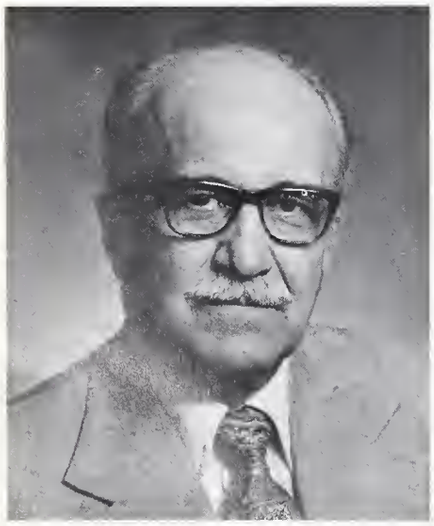
Second opinions

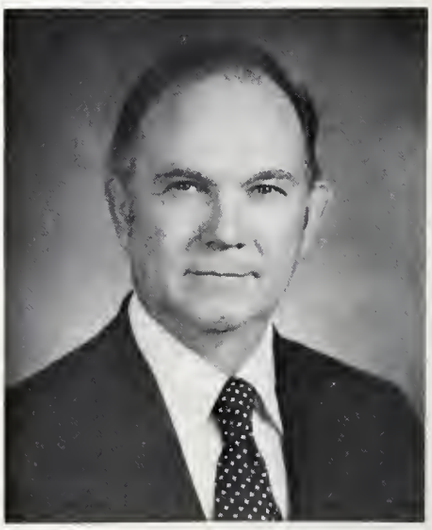
Delegates will also consider proposed guidelines for consultation and second opinion programs.

The guidelines state that TMA fully supports the right of a patient and a physician to seek consultation freely with a consultant of his or her choice.

The policy also states that the TMA respects the right of insurance companies, fiscal intermediaries, and third parties to establish the level of benefits under policies and programs which they offer. Similarly, the physician has the right to establish fees for consultations which are reasonable for professional services which he or she has rendered. The proposed policy also states that for professional services rendered, the physician should have

Jose G. Rodarte, MD, Temple, Fratis Duff, MD, Austin, and Joseph T. Ainsworth, MD, Houston, will be honored by the TMA House of Delegates meeting in Austin Nov 10, 11, and 12.





the option, as at present, of billing the patient directly or accepting an assignment for the payment of those services.

Legislative policies and proposals

A number of legislative policies and proposals will be considered by the delegates. These include issues of midwifery, professional liability insurance, the federal rural health clinics legislation, and emergency medical service legislation.

Uniform claim form

The Council on Tax-Financed Health Care Programs is asking the House to approve a policy urging all members to direct bill, as previously approved by the House. The uniform claim form will be used in all programs, including CHAMPUS, when filing claims for services rendered.

In the CHAMPUS programs, the Council recommends that physicians using the direct billing method should complete the uniform claim form and give it to the patient for attachment to CHAMPUS form No. 500, which the patient will complete. Should the physician accept assignment in the CHAMPUS program, he or she will be required to complete boxes 32 and 33 of this form No. 500 for submission with the medical information provided on the uniform claim form.

Physician health and rehabilitation

TMA's Committee on Physician Health and Rehabilitation is asking for help in continuing programs to inform physicians and county medical societies of the help available from the committee to deal with the occupational hazards of medical practice.

A resource directory listing the services of rehabilitation treatment centers will be published and available from county medical societies.

The committee also plans to poll medical schools on the nature of their programs, and two additional surveys are planned to identify resources for the treatment and employment of problem physicians.

TEXPAC activities

Delegates will receive a report from TEXPAC, Texas physicians political action organization, listing activities and accomplishments of the group.

As of September 1978, 3,948 physicians had contributed, and of these, 265 were members of the TEXPAC 300 Club. Fifty-three county societies had raised or exceeded 100% of their 1978 TEXPAC goal.

Presentations

Presentation of TMA's Distinguished Service Award to Jose Rodarte, MD, Temple, will highlight the opening session of the TMA House of Delegates Friday.

The House will also honor Fratis Duff, MD, director of the Texas Department of Health, for his years of service to medicine in Texas, and Joseph T. Ainsworth, MD, Houston, for his years of service on TMA's Council on Medical Legislation.

TIMA signs contract for Texas PSRO

The planning phase of the first professional standards review organization (PSRO) in Texas is under way after officials of the Department of Health, Education, and Welfare (DHEW) and the Texas Institute for Medical Assessment (TIMA) signed a $404,208 planning contract in September.

Signing of the contract comes more than five years after PSROs were mandated by federal legislation in 1972.

During most of that period, federal efforts were to divide Texas into nine PSRO areas, but DHEW Secretary Joseph Califano has now signed the final regulation on the designation of Texas as a single, statewide PSRO.

Texas is the only populous state that will have only one PSRO. TIMA was awarded the largest appropriation for a year's planning contract ever given.

Nationwide, PSRO plans and continued funding are all contingent upon PSRO cost effectiveness studies now being conducted by the federal government.

TIMA is now in the process of hiring staff. The TIMA board of directors and advisory groups will meet in Austin Nov 19. Officers of TIMA include John Boyd, DO, Eden, president; Joseph T. Painter, MD, Houston, past president; Milton V. Davis, MD, Dallas, vice president; William F. Ross, MD, Dallas, president elect; and Carmault B. Jackson, Jr, MD, Houston, secretary treasurer.

Other members of the board of directors include Gerald P. Flannagan, DO, Denton; John M. Smith, Jr, MD, San Antonio; L. S. Thompson, Jr, MD, Dallas; Ben R. Keller, Jr, MD, Arlington; Robert L. Peters, Jr, DO, Round Rock; David Armbruster, DO, Pearland; Robert C. Hickey, MD, Houston; Louis W. Conradt, MD, Dallas; Charles R. Morris, MD, Dallas; Barry E. Phillips, MD, Rosebud; and Harry Shytles, Jr, MD, Sherman.

During the planning phase, TIMA officials will continue development of a plan for orderly assumption of PSRO responsibilities.

No reviews will be done during the planning phase. TIMA will hire staff, recruit physicians for participation in evaluations, produce planning and educational materials, and seek hospital participation. Negotiations will

begin next year for a contract under which TIMA will enter an operational phase and, upon satisfactory completion of those talks, actual reviews of data on admissions to Texas hospitals for medical necessity, appropriateness of treatment, length of stay, and utilization of services and therapy will begin.

TIMA officials must enlist as members 25% or more doctors who are licensed to engage in the practice of medicine in the PSRO area and develop a plan for continuous recruitment of physicians. TIMA members will be presenting educational programs and materials to inform Texas physicians about PSRO activities.

TIMA was organized first by the TMA, and then joined by the Texas Osteopathic Medical Association and the Texas Hospital Association in 1973. Other allied health care associations and agencies in Texas have served in an advisory capacity.

The TMA House of Delegates originally voted to continue to work for the repeal of the PSRO section of the federal legislation.

However, the House endorsed basic premises for health care review programs if the PSRO legislation was enacted. The policy states that the design and implementation of these programs should be controlled by physicians, provisions should be made so that the review mechanism is the same for all programs, programs must be flexible enough to take into account local circumstances and initiative, and there should be support for the programs between administrative, board, and professional elements.

The House also endorsed and supported the Texas Institute for Medical Assessment.

TMA develops guidelines on consultation

New TMA guidelines on consultation and second opinions emphasize the Association's long-held belief that patients should be free to seek additional medical advice before deciding whether to undergo surgery recommended by one physician.

The TMA guidelines state that the Association "fully supports the right of a patient and a physician to seek consultation freely with a consultant of his or her choice," and that TMA and county medical societies "should readily provide information about physicians and lists of members to patients and others who desire to secure consultations or to seek second opinions."

Additionally, the guidelines support the patient's right to accept the recommendation of his or her physician, and to choose either to secure or not to secure a second opinion.

TMA also defended the physician's right to establish fees for his services and to bill his patients directly, or to accept "an assignment for the payment of those services."

TMA formalized its stand following meetings this fall with Prudential Insurance Co, which proposed a national group insurance policy establishing a "closed panel" of board-certified surgeons to examine and consult possible surgery patients. Under the plan, Prudential would have chosen the patient's second consultant from panel members practicing near the patient's residence.

Representatives of the Texas Medical Liability Trust presented details of the new trust to members of the Harris County Medical Society at the September meeting. The trust is a new physician-owned professional liability insurance program with offices in Austin. From right to left are Ace Pickens, Austin, a member of Brown, Maroney, Rose, Baker and Barber, TMA Legal Counsel; John Dorsett, vice president, American Health Systems, Inc; Robert G. Thumwood, MD, Houston, a member of the trust's board of governors; E. Don Webb, MD, Houston, a member of the Texas Medical Professional Liability Study Commission, and Presley H. Chalmers, MD, Houston, vice chairman of the trust's board of governors.

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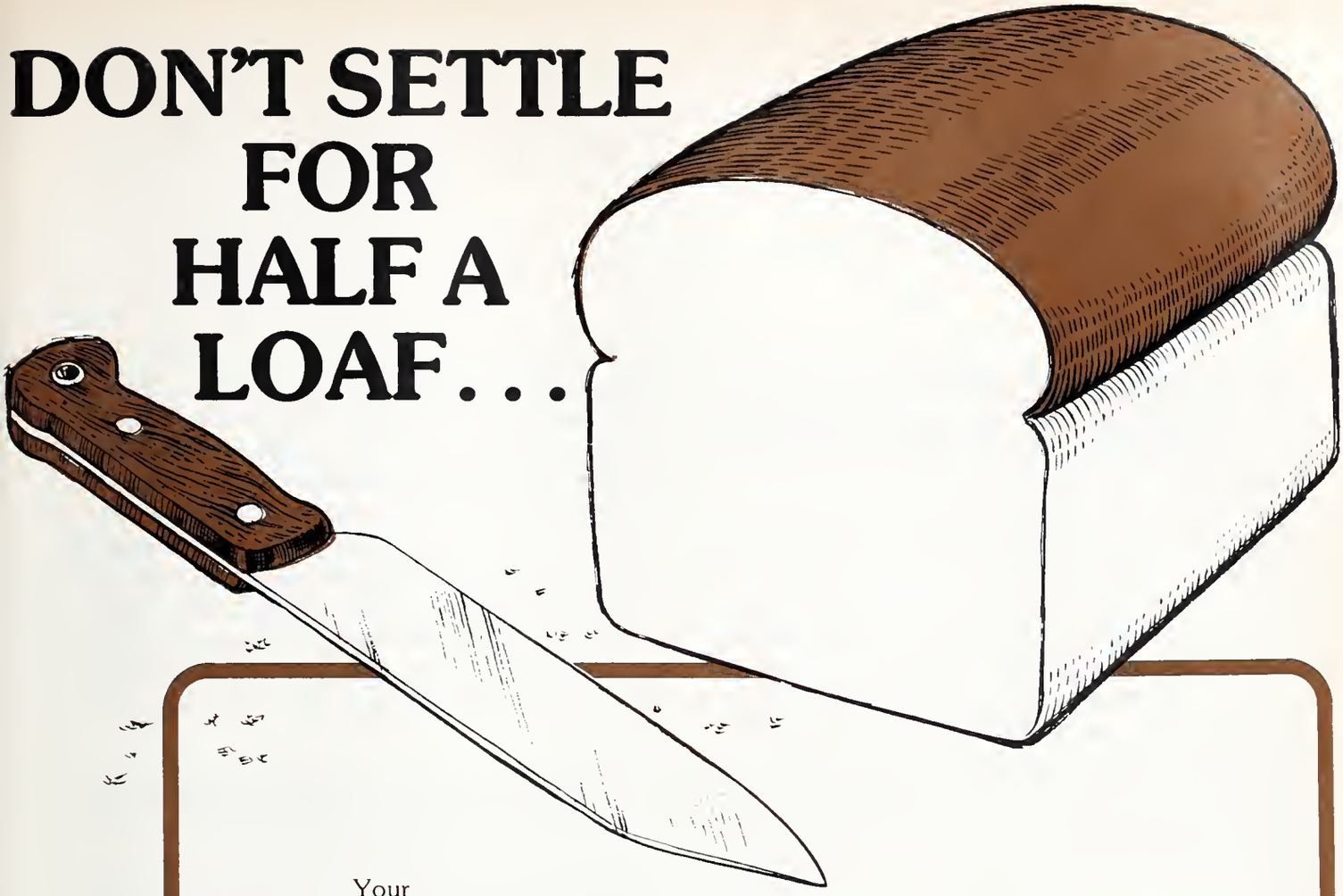

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Following meetings with TMA representatives, however, Prudential agreed to TMA requests that Prudential's proposed Texas group policy allow patients to confer with the physicians of their choice.

Prudential has asked TMA to help with development of a model plan. In response to TMA recommendations, Prudential will revise a portion of the plan that would have paid a panel member $50 for each "second opinion" he offered under the plan. In a more recent proposal, Prudential spokesmen said the company would pay reasonable and customary fees for the consultations, but expressed reluctance to approve a policy containing no cost ceilings.

TMA president Mylie E. Durham, Jr, MD, said the guidelines, adopted during a September meeting of TMA's Executive Board, were issued "in the interest of good doctor-patient relationships."

TMA's education program is accredited by LCCME

The Texas Medical Association's continuing medical education program has been granted continued accreditation by the Liaison Committee on Continuing Medical Education (LCCME).

The accreditation is for four years, the maximum length of time granted for accreditation. TMA's initial accreditation was granted for a two-year period. As an accredited organization, TMA may certify which of its own programs meet criteria under the AMA Physician's Recognition Program, including Category I.

The accreditation applies to the formal, planned educational program of TMA, which includes primarily the Annual Session and programs at TMA's fall and winter conferences. *Texas Medicine*, the TMA Memorial Library packet services, the medical seminars with TMA's travel program, and the *Texas Continuing Education Directory for Physicians* are also aspects of TMA's continuing education program. As an accredited organization, TMA may also cosponsor programs as long as it is involved in the planning, development, administration, and evaluation of the program.

Presently, TMA has certified that programs at the Annual Session, the fall conference, and the winter conference meet AMA Category I criteria.

Jesse D. Rising, MD, a surveyor for the LCCME, visited TMA's Annual Session programs in San Antonio in May 1978. Dr Rising, who met with TMA's Committee on Continuing Education and members of the TMA staff, is director of the continuing education division at the University of Kansas College of Health Sciences.

In a report to TMA, LCCME members advised that TMA consider developing a means to document continuing education credit for physicians participating in TMA programs, in view of the increasing number of agencies and organizations with requirements for continuing education.

TMA is also an accrediting agent, which enables the Association to accredit local and in-state institutions and hospitals, state-level specialty societies, voluntary health

Texas medical schools 1978 entering classes*

	Freshmen Male	Freshmen Female	Total	School's total enrollment
Baylor College of Medicine	131	37	168	638
Southwestern Medical School	170	36	206	821
Texas A&M University College of Medicine	29	3	32	64
Texas College of Osteopathic Medicine	68	13	83	299
Texas Tech University School of Medicine	48	12	60	186
University of Texas Medical Branch	151	57	208	797
University of Texas Medical School at Houston	114	36	150	412
University of Texas Medical School at San Antonio	155	46	201	615
Totals	866	240	1108	3832

*Source: Texas medical schools

agencies, and county medical societies for continuing education.

With TMA's recommendation, the LCCME granted full accreditation for four years to St Paul Hospital, Dallas, and provisional accreditation for two years for Hendrick Medical Center, Abilene.

TMA has accredited five institutions, and applications from four more are being considered. For more accreditation information contact the TMA Committee on Continuing Education, Texas Medical Association, 1905 N Lamar Blvd, Austin, Tex 78705, phone (512-477-6704).

TMA sponsors conference on the impaired physician

A conference on the impaired physician and alcoholism will be sponsored by the Texas Medical Association and other Texas health groups Friday, Nov 10, in Austin.

The one-day conference includes five free sessions focusing on the alcoholic physician and aids for physicians with other impairments.

Attendance provides 3½ hours continuing medical education credit toward Category 1 of the AMA's Physician Recognition Award.

Featured speakers include Stanley Gitlow, MD, professor at New York's Mt Sinai medical school, who is nationally recognized for his work in defining the disease concept of alcoholism and for probing the behavioral aspects of sedative and alcohol use.

Also speaking will be Leslie Ansley, MD, who heads the TMA Committee on Physician Health and Rehabilitation. Dr Ansley, a Lubbock gynecologist, has helped establish a 24-hour phone line, a confidential system of counseling, and increased educational opportunities to help doctors cope with the physical and mental stresses of medical practice.

Others are G. Douglas Talbott, MD, program director of the Medical Association of Georgia's physician rehabilitation program, the first state society program to incorporate treatment with identification of disabled doctors, and Kanellos Charalampous, MD, chairman of Texas Tech medical school's psychiatry department and an expert in psychopharmacology, alcoholism, and community/social psychiatry.

Registration forms for the conference appear on page 5 of *Texas Medicine*.

AMA and ANA presidents will speak at conference

Tom E. Nesbitt, MD, AMA president, and Barbara Nichols, RN, MS, American Nurses' Association president, will address the National Joint Practice Commission's Third National Conference on Joint Practice at its meeting in Dallas Nov 9–11 at the Fairmont Hotel.

TMA representatives will attend the November meeting. Conference participants will hear progress reports on the introduction of joint practice in four hospitals.

These hospitals are simultaneously initiating five elements of joint practice including primary nursing, encouraging individual nurses' clinical decision-making, an integrated patient record, joint nurse-physician evaluation of patient care, and a nurse-physician joint practice committee.

Workshops will be conducted on a wide range of topics related to nurse-physician collaboration and the establishment of conditions conducive to collaboration.

The National Joint Practice Commission was established in 1972 by the American Medical Association and the American Nurses' Association to make recommendations concerning the congruent roles of the physician and the nurse in providing quality health care to the American people. The commission is funded by grants from the AMA, ANA, and the W. K. Kellogg Foundation.

Dr Ramirez honored as family doctor of the year

Mario E. Ramirez, MD, TMA president-elect and a physician in Starr County, was recognized formally as *Good Housekeeping*'s Family Doctor of the Year in a presentation ceremony in San Francisco in September.

Dr Ramirez and his family were guests of President Jimmy Carter at the White House earlier this year when the President announced the 1978 winner of the annual honor cosponsored by the magazine and the American Academy of Family Physicians.

Dr Ramirez belongs to the AAFP and serves on its Health Care Services Commission.

John Mack Carter, editor of *Good Housekeeping*, said Dr Ramirez epitomizes the qualities of competence, concern, and caring that characterize the family physician.

"Dr Ramirez is a gentle, humble, but very effective phy-

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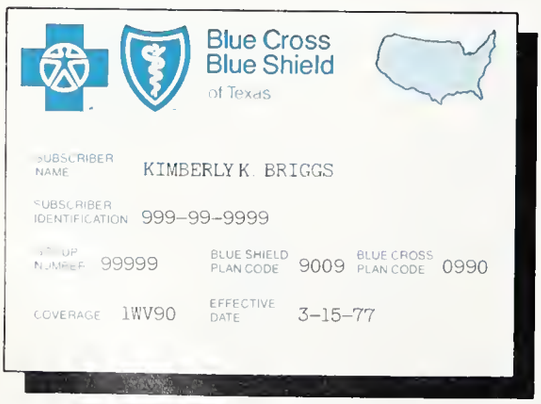

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sician and person who symbolizes not only his profession but the nobility of the Hispanic race. He is a family doctor we can all look up to," Carter said.

Dr Ramirez also has been honored by The University of Texas, by the American Medical Association, and by President Lyndon Johnson for his personal efforts in behalf of victims of a destructive hurricane which struck the Texas Gulf Coast some years ago.

Responses to survey are voluntary

Response to a national medical care expenditures survey that some Texas physicians have been receiving in the mail is voluntary, according to TMA officials.

This survey began in 1977 with a contract to a private research group from the Department of Health, Education, and Welfare.

The contract covered sampling 13,500 households with requests to keep track of health expenses for the year.

The surveying group found that the data were not complete or reliable. Now, they are seeking to cross check that data by contacting physicians, if one or more of their patients happened to be a part of the 13,500 households sampled.

The physician is asked to complete that part of the survey relating to patient visits, if he or she chooses to do so.

TMA officials warn that physicians should not provide information without a release from the patient.

October began new year for CHAMPUS deductible

Oct 1 began the start of a new year for CHAMPUS outpatient deductibles.

A deductible satisfied during fiscal year 1978 (Oct 1, 1977 through Sept 30, 1978) cannot be applied to care received after Sept 30, according to defense department officials. A new outpatient deductible will have to be satisfied for fiscal year 1979.

The outpatient deductible is the initial amount a beneficiary must pay each fiscal year before CHAMPUS assistance is available for outpatient expenses. For an individual, it is the first $50 of authorized outpatient charges in a fiscal year.

For a family of two or more beneficiaries filing claims, the maximum deductible in a fiscal year is $100.

UTMB cancer center receives continued grant

The cancer center support grant of the University of Texas Medical Branch at Galveston has been renewed by the National Cancer Institute.

The three-year renewal grant will provide an estimated $1.5 million.

The UTMB cancer center has been successful in the fostering of interdisciplinary research, according to John J. Costanzi, principal investigator and program director of the center. One example is a clinical research program involving the scheduling of chemotherapy depending on cell cycle kinetics based on laboratory work. Another is the program in peptide hormones which has resulted in clinical immunotherapy trials utilizing thymosin prepared at UTMB.

UTMB's role as the only multicategorical health referral center in Texas has led to a number of environmental research programs. A constructive relationship with the state's chemical industries promises to yield important results in studies of industrial carcinogenesis and cancer epidemiology.

Vitamins and minerals can be hazardous

Indiscriminate supplementation of vitamins carries the danger of creating imbalances among nutrients, and disproportionate intakes of a single mineral may diminish absorption and utilization of other minerals says a new report published by the American Dietetic Association.

Limits of safety for the well defined micro-nutrients are included in the monograph, titled *Vitamin, Mineral Safety, Toxicity, and Misuse*, and prepared by the Committee on Safety, Toxicity, and Misuse of Vitamins and Trace Minerals of the National Nutrition Consortium, Inc.

In 1975, a federal court ruling redefined the Food and Drug Administration's role in regulating vitamin and mineral supplements available to US consumers. New legislation in 1976 prohibited the establishment of maximum limits of vitamins and minerals in supplements offered for

sale except for children under 12 and pregnant and lactating women.

Because of the changes in safety control and the possible danger in unlimited use of essential nutrients, the National Nutrition Consortium, including the ADA, appointed a special committee to examine potential hazards and to recommend safety limits.

For more information contact the American Dietetic Association, 430 N Michigan Ave, Chicago, IL 60611.

UT system conducts cancer program for nurses

A detailed instruction program on cancer screening and detection for nurses is conducted by The University of Texas System Cancer Center Department of Extramural Programs in Houston.

The three-week program is designed to educate nurses throughout the United States in the skills needed to screen for early cancers.

Already nurses from all parts of the United States employed in private physician's offices, hospitals, health departments, industry, and other health care facilities have completed the program.

Physicians or nurses interested in more information on the small monthly classes should contact Alice F. Judkins, RN, NP, or Linda White, RN, Cancer Screening Program for Nurses, University of Texas System Cancer Center, PR-858, Texas Medical Center, Houston, TX 77030.

Coming next month

Articles scheduled for November are on bronchial asthma, trigeminal neuralgia, acetaminophen overdose, and infectious mononucleosis.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media[a]	1978 through 9/30	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	+29.5%	+38.0%	−23.1%	1.3%
Loomis-Sayles Mutual Fund	+ 5.1%	+25.3%	−18.2%	3.8%
Mercantile Bank HR-10 Equity Fund	+ 2.8%	+56.0%	−16.6%	b
Mercantile Bank HR-10 Fixed Income Fund	− 1.1%	+34.6%	+26.9%	b
T. Rowe Price Growth Stock Fund	+14.3%	+33.9%	−33.8%	1.9%
T. Rowe Price New Income Fund	− 2.9%	+ 6.6%	N/A	7.9%
Stein, Roe & Farnham Balanced Fund	+ 6.9%	+25.8%	−23.8%	3.4%
Standard & Poor 500 Stock Average	+ 7.8%	+38.8%	−19.4%	
Dow Jones Industrial Average	+ 4.2%	+34.8%	−18.5%	

a. Mutual Fund performances include reinvested capital gain distributions.
b. Mercantile HR-10 Equity and Fixed Income Funds make no distributions. All earnings are retained in the respective funds.

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Amy Wilson, CAE

John Kemp, CAE

E. Gartly Jaco, PhD

VERNIE A. STEMBRIDGE, MD, Dallas, president of the American Society of Clinical Pathologists, was honored during homecoming ceremonies by The University of Texas at El Paso as outstanding ex-student. Dr Stembridge is chairman of the department of pathology at UT Southwestern Medical School, director of the Tumor Clinic at Parkland Memorial Hospital in Dallas, and trustee of the American Board of Pathology.

AMY WILSON, Austin, administrative secretary of the TMA Auxiliary, and JOHN N. KEMP, Austin, executive director of the Travis County Medical Society, have been designated Certified Association Executives (CAE) by the American Society of Association Executives. They qualified for the CAE certification by successfully passing an extensive examination covering many association management subjects and by fulfilling prescribed standards of performance and conduct.

E. GARTLY JACO, PhD, has been named director of the division of health behavior at The University of Texas Medical Branch. Dr Jaco has been a professor of health care administration and sociology at Trinity University since 1976, while on leave from the University of California-Riverside.

C. EUGENE CARLTON, MD, Houston, has been honored by the American Urological Association for significant achievement in advancing the progress of continuing education, the first award ever given by the association for continuing education. Dr Carlton is professor and head of urology at Baylor College of Medicine.

JORDAN U. GUTTERMAN, MD, Houston, has been selected by the American Cancer Society to co-chair an ad hoc committee of scientists to develop protocol details for clinical testing to determine the possible value of human leukocyte interferon in the treatment of advanced cancer. Dr Gutterman is associate professor of medicine at The University of Texas M. D. Anderson Hospital and Tumor Institute.

MARVIN C. SCHLECTE, MD, Austin, has been installed as president of the Texas Rehabilitation Association for 1978–1979. Dr Schlecte is the administrative medical consultant for the Texas Rehabilitation Commission.

ALFRED L. LANE, MD, Corpus Christi, a past president of Nueces County Medical Society, has been honored by his patients and friends in Bishop, Tex, with a tribute published in a Corpus Christi newspaper. Dr Lane retired in February 1978 because of illness.

CAPITAL COMMENTS

Editor's Note: "Capital Comments" highlights current items of interest relating to health matters in the US Congress, federal agencies, state legislatures, and Texas administrative agencies.

AUSTIN CONSTITUTIONAL AMENDMENTS In the Nov 7, 1978, general election, Texans will vote on nine proposed constitutional amendments. A series of amendments proposed by the second called session of the Texas Legislature relate to taxation of intangible property, personal property tax exemptions, taxation of agricultural land, residential homestead exemptions, mandated school tax exemptions, legislative school tax exemption for the elderly and disabled, protection from school districts against lost revenue, truth and taxation, state spending limitations, and property tax administration. Other amendments would exempt products manufactured by handicapped persons from the requirements that purchasing by state agencies be done by competitive bidding, allow the legislature to authorize political subdivisions to issue revenue bonds to develop employment opportunity, grant the legislature the power to authorize cities and towns to issue tax increment bonds to finance redevelopment of blighted areas, and authorize the legislature to exempt from taxation solar or wind-powered energy devices. Four other amendments would expand the jurisdiction of the justices of the peace in civil cases, authorize the legislature to increase the number of associate justices on a court of civil appeals and permit a court of civil appeals to sit in sections, abolish the State Building Commission and the State Building Fund, and authorize water districts to engage in fire-fighting activities and to issue bonds and lend their credit for fire-fighting purposes.

WASHINGTON NATIONAL HEALTH INSURANCE "The only reason, I suspect, that we still hear of a national health service is Sen Edward Kennedy's understandable desire to have his name on one piece of major national legislation," said Peter Drucker, Clark Professor of Social Sciences at Clairmont Graduate School in a *Wall Street Journal* column. Drucker said that it is not true that the American people are dissatisfied with the health care system. "It is even less true that Americans feel themselves suffering from the staggering cost of a fee for service system," Drucker said. "Nineteen out of 20 of us, around 95% of the population, have a prepayment health plan and do not pay for the services we receive. Indeed that may be one of the reasons why health care costs are so hard to control." The American health care system may actually be among the cheaper ones in terms of gross national income and family income, Drucker said. There are good reasons why the great majority of Americans in every survey declares itself pretty satisfied with its health care system and why there is no grass roots pressure for more than minor changes in it, he said.

AUSTIN HUMAN SERVICES COMMITTEE A special committee to study the human services delivery system in Texas has been appointed. The committee will send findings and recommendations and drafts of any legislation to Lt Gov Bill Hobby and members of the Texas Legislature no later than Jan 1, 1981. The committee will study Texas and federal laws relating to human services, existing human services provided by state-supported entities and the private sector, populations served by the services, and the effective use of state funds. Members of the committee are Helen Farabee, Wichita Falls, chairperson; Sen Chet Brooks, Pasadena, vice chairperson; Morris Atlas, McAllen; Roy R. Barrera, San Antonio; Frank C. Erwin, Jr, Austin; Rep Barbara Jordan, Houston; Sen Bill Meier, Euless; County Commissioner Ann Richards, Austin; Sen A. R. "Babe" Schwartz, Galveston; Max Sherman, Canyon; Sen Pete Snelson, Midland; and Theodore H. "Ted" Strauss, Dallas.

WASHINGTON CONTROLLED SUBSTANCES The Dept of Justice has issued a final rule that requires the manufacture, distribution, dispensing, importation, and exportation of preparations combining 1 mg difenoxin with 0.025 mg atropine sulfate be subject to the control applicable to narcotics substances in Schedule IV of the Controlled Substances Act. The rule also requires that preparations combining 0.5 mg difenoxin with 0.025 mg atropine sulfate be subject to the controls applicable to Schedule V, Narcotic Substances. The information was published in the *Federal Register*, Aug 28, 1978, page 38382.

WASHINGTON NATUROPATHS LOSE Practitioners of the healing art that substitutes herbs and natural foods for synthetic drugs again have failed to wrest control of their profession from what they charge is a medical monopoly. The naturopaths were unable to persuade the Fourth US Circuit Court of Appeals that their profession should not be subject to regulation and that licensing requirements applied to orthodox medicine. Suits were filed by scores of individuals in naturopathic professional groups from states including Texas, Idaho, New York, Alaska, Michigan, Washington, and Oregon. In dismissing the naturopath suit, the appeals court cited seven US Supreme Court rulings upholding state statutes and administrative rules that have placed naturopaths under the control of medical licensing procedures or that have made it illegal. "We conclude that naturopaths' various constitutional claims depend upon a single underlying contention: that a state must recognize naturopathy as a discipline distinct from orthodox practice of medicine whose practitioners were entitled to licensing requirements different from those imposed on physicians," the appeals court said. "In light of the decisions of the Supreme Court we have reviewed, we find that the naturopaths' basic claim has been firmly, repeatedly, and author-

itatively rejected. We affirm the judgment of the district court."

WASHINGTON MALPRACTICE RATES EASE Reports from the insurance industry indicate that the medical malpractice insurance crisis has eased, if not abated. The latest indication of easing is the recent reduction from 10 to 25% in medical malpractice premiums announced by St Paul Fire and Marine Insurance Company, the nation's largest malpractice insurance firm. Hartford Insurance Group has also pledged cuts in hospital malpractice charges and premium rates for physicians. Cuts and line-holding by the two firms and other carriers have been attributed to passage of laws governing the size of malpractice claims in some states and the lawyers' lack of enthusiasm for filing malpractice suits. Also contributing, according to reports, is the establishment by medical societies of owned mutual insurance firms denying coverage to high-risk physicians. The number of malpractice suits is reported to be on the climb as a result of these and related factors.

WASHINGTON DRUG CATALOG Benefits of HEW's proposed drug price catalog are "entirely speculative," the AMA told the Health Care Financing Administration, recommending that two studies be made before the *Guide to Drug Prices* becomes a permanent federal publication. In announcing plans for the guide, HEW Secretary Joseph Califano said it "should allow doctors and pharmacists to take cost into account when prescribing and ordering prescription drugs." Draft copies of the publication recently were sent to selected individuals and organizations for comment. The final version, which will be updated every six months, will be mailed in January to 350,000 physicians, to pharmacists, and to any consumers who ask for it. Commenting on the draft copy, the AMA noted that the prices contained in the guide are merely nationwide averages and that the lowest priced drug named could be the highest priced drug in a particular area or pharmacy.

WASHINGTON NATIONAL HEALTH SERVICE CORPS DHEW has published preliminary regulations governing assignment of members of the National Health Service Corps. The corps was established in 1972, and has a staff at 396 sites in 48 states and Puerto Rico including 709 health professionals. Professional staff will be expanded as health professionals complete education under the Health Professional Education Assistance Act of 1976. Those receiving education under the terms of the act agree to provide staffing in medically underserved areas. Under proposed regulations, public and nonprofit entities seeking assignment of NHSC personnel must meet specific requirements including fee schedules covering value of services provided. Fees, however, may not be used to prevent delivery of services to persons below the poverty level who are to receive services without charge or at a reduced charge.

WASHINGTON RULES ON ABORTIONS DHEW is amending final regulations governing federal financial participation in expenditures for abortions funded through various DHEW programs. Under the new rules, federal financial participation is available for abortions if the life of the woman would be endangered and a doctor certifies it in writing, and includes the name and address of the patient; if severe and long-lasting damage to the mother's physical health would result from carrying to term and two doctors certify it in writing and include the patient's name and address; or if the woman was a victim of rape or incest, and reported it within 60 days, and obtained signed documentation from a law enforcement agency or public health service stating the date of the incident, date of reporting it, and the name and address of the patient and of the person who reported the incident, if different.

WASHINGTON HOSPITAL COST CONTAINMENT A proposed amendment to the hospital cost containment bill which would have required doctors to accept mandatory Medicare assignments was rejected 27 to 11 by the House Commerce Committee. Rep Toby Moffett, D-Conn, who offered the amendment, said he believes the cost control bill has been gutted by amendments backed by labor and health interest groups and he will vote against it.

WASHINGTON MANPOWER SHORTAGE AREAS DHEW/HRA has issued a list of health manpower shortage areas as designated by the DHEW Secretary under the authority of Section 332 of the Public Health Service Act. See the *Federal Register*, July 17, 1978, page 30648. In Texas 113 counties are listed as health manpower shortage areas. Additional areas are being designated continuously.

ILLINOIS RATE REGULATION BILL The Illinois legislature has passed a bill which would create a state health finance authority to review rate requests of the state's 380 hospitals. It is expected to be signed into law by the governor.

Does it influence your choice of a peripheral/cerebral vasodilator*?

- Vasodilan—compatible with coexisting diseases
- Vasodilan—compatible with concomitant therapy
- Vasodilan—compatible with your total regimen for vascular insufficiency

*Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows

Possibly Effective

1 For the relief of symptoms associated with cerebral vascular insufficiency.
2 In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease

Final classification of the less-than-effective indications requires further investigation

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg and 20 mg
Vasodilan injection, isoxsuprine HCl, 5 mg, per ml

Dosage and Administration: Oral 10 to 20 mg, three or four times daily
Intramuscular 5 to 10 mg (1 or 2 ml) two or three times daily Intramuscular administration may be used initially in severe or acute conditions

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses Should not be given immediately postpartum or in the presence of arterial bleeding

Parenteral administration is not recommended in the presence of hypotension or tachycardia

Intravenous administration should not be given because of increased likelihood of side effects

Adverse Reactions: On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash If rash appears the drug should be discontinued

Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted

Administration of single dose of 10 mg intramuscularly may result in hypotension and tachycardia These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg are not recommended Repeated administration of 5 to 10 mg intramuscularly at suitable intervals may be employed

Supplied: Tablets, 10 mg, bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg, bottles of 100, 500, 1000, 5000 and Unit Dose, Injection, 10 mg per 2 ml ampul, box of six 2 ml ampuls

U S Pat No 3,056,836

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(ISOXSUPRINE HCl)

20-mg tablets

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This asthmatic isn't worried about his next breath...

he's active he's effectively maintained on

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Each capsule or tablespoon (15 ml) elixir contains theophylline (anhydrous) 150 mg and glyceryl guaiacolate (guaifenesin) 90 mg. Elixir: alcohol 15%

- theophylline for effective around-the-clock bronchodilator therapy
- 100% free theophylline

Indications: For the symptomatic relief of bronchospastic conditions such as bronchial asthma, chronic bronchitis, and pulmonary emphysema.

Warnings: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other compounds containing xanthine derivatives concurrently.

Precautions: Use with caution in patients with cardiac disease, hepatic or renal impairment. Concurrent administration with certain antibiotics, i.e. clindamycin, erythromycin, troleandomycin, may result in higher serum levels of theophylline. Plasma prothrombin and factor V may increase, but any clinical effect is likely to be small. Metabolites of guaifenesin may contribute to increased urinary 5-hydroxyindoleacetic acid readings, when determined with nitrosonaphtol reagent. Safe use in pregnancy has not been established. Use in case of pregnancy only when clearly needed.

Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 μg/ml.

How Supplied: Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.

See package insert for complete prescribing information.

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Jose Rodarte, MD, TMA's distinguished award winner, reflects on 40 years of medical service

He served on the Texas State Board of Medical Examiners for 26 years and holds the unique distinction of having been elected president by the board for six terms.

He was the team physician for the Temple Eagles, chairman of Temple's Parks and Recreation Department, and active in the Good Neighbor Commission.

He has served as chairman of TMA's Health Care and Insurance Committee for Mexican Migrant Workers, a member of TMA's Council on Medical Service and Insurance, and a member of TMA's Council of Medical Education and Hospitals.

For these and other accomplishments, the Texas Medical Association will honor Jose Rodarte, MD, with the Distinguished Service Award in November.

About receiving the award during the November session of the TMA House of Delegates, Dr Rodarte says, "I am surprised and find it hard to believe. I immediately think of others who deserve it more than I."

"It was a privilege and an honor for me to serve in several capacities for the TMA and also as a member of the Texas State Board of Medical Examiners. It was I that benefitted from these relationships."

Besides his other activities Dr Rodarte has also been a trustee and president of the American Association of Medical Clinics (now the American Group Practice Association), active in the Federation of State Medical Boards of the United States, and a member of the board of trustees of the Education Commission for Foreign Medical Graduates.

To be a physician

The retired Temple physician grew up in a family of physicians in El Paso, went to Galveston for his medical education, and settled in Temple to begin a distinguished career in internal medicine at Scott and White Clinic.

"I was reared in a medical atmosphere," says Dr Rodarte, "where my father and older brother were both physicians."

His uncle was a pharmacist and owned a pharmacy in the same office building with several physicians. During school vacations, Dr Rodarte worked in the pharmacy and was impressed by the patient/physician relationship, the devotion the patients had for their doctors, and the doctors' dedication to their patients. "It was then that I decided I wanted to be a physician."

The son of Jose and Duene Rodarte is also following in the Rodarte tradition. Joseph Rodarte, MD, is an internist and pulmonary diseases specialist on the staff of the Mayo Clinic.

Recalling his medical education, Dr Rodarte states "Medical education has improved in medical schools since I received the MD degree." The medical students are now introduced to the patient early in their medical school careers, frequently beginning patient interviews and introduction to physical diagnosis in year one. We didn't begin seeing patients until our junior year. In addition, there is a concerted effort to integrate the basic science subjects with the clinical disciplines.

Increased attention is given to the organization of the education program and to evaluating the effectiveness of these programs, he observes.

Dr Rodarte says the marked expansion of new instructional technology through the use of audiovisual teaching programs, tapes, movies, closed circuit live television and the application of computer technology to the teaching program has greatly improved the medical student's educational programs.

During the clinical years of training, students now frequently take elective clerkships in various specialties in hospitals and clinics outside the main medical center complex. "This provides the student the opportunity to obtain a broader view of the entire spectrum of medicine."

"A person just beginning medical education must be genuinely interested in healing the ill," Dr Rodarte reflects. He or she must be sure not to pursue a medical career just for the prestige of getting a medical degree, or for business and financial reasons. "The cost of becoming a physician is very high and it requires many years of training. After graduating from medical school, it requires more years of additional graduate training and even, when in practice, a continued medical education. Becoming a successful physician requires many hours of hard work during an entire career."

After receiving his MD degree from The University of Texas Medical Branch in Galveston, he undertook his residency training at Scott and White. In 1949, Dr Rodarte became a charter trustee of Scott and White Memorial Hospital. He was also a charter member of the Board of Directors of Scott and White Clinic, serving as secretary-treasurer from 1953 until 1973. Until 1968, he was chairman of the Division of Medicine and then served as a senior consultant until he retired in 1977.

Active in medical affairs

In 1951 Dr Rodarte was appointed to the Texas State Board of Medical Examiners and served until he resigned in 1977. He served under Texas governors Allan Shivers, Price Daniel, John Connally, Preston Smith, and Dolph Briscoe.

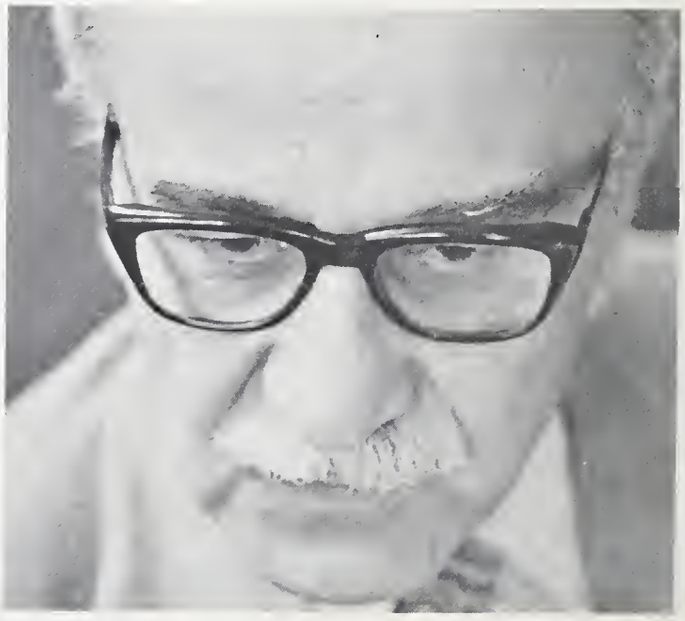
When he joined the board, it was licensing 307 physicians by examination and 324 by reciprocity annually. In 1977, the board licensed 1,607 physicians by reciprocity and 834 by examination. By January 1978, there were 19,485 in state and 9,205 out of state physicians registered with the board.

"During these years, we faced increased pressure to license foreign medical graduates, many of whom are excellently trained and others whose training has been marginal. Weighing the public interest in seeing that an adequate number of physicians are licensed, but at the same time insuring that the physicians are adequately trained, has been a difficult problem."

While Dr Rodarte was on the board, members adopted guidelines to allow for licensure under the Fifth Pathway Program (one academic year of supervised clinical training) for Americans in foreign medical schools. Later, the legislature adopted similar statutes, and the board now has a limited number of Fifth Pathway licensees each year. Since 1976, the board has utilized the Federation Licensure Examination (FLEX) used by all 50 states.

While he was on the board, members also faced the development of utilization of physician assistants and adopted rules for the supervising physician with a delineation of tasks which may be performed by the physician assistant.

While Dr Rodarte was on the board, the disciplinary activities increased and became more complex with the passage of the Texas Administrative Procedure Act, and as a result in board's staff has increased substantially. Dr Rodarte thinks that the board probably now has the tools to discipline Texas physicians adequately, but that a period of years with court appeals and board decisions will be necessary to determine if the new powers are sufficient.



"Undoubtedly, the board activities and staff will continue to increase since the passage of Article 4590-i (HB 1048) in 1977." Under the new law the board may take disciplinary actions against physicians for certain conditions.

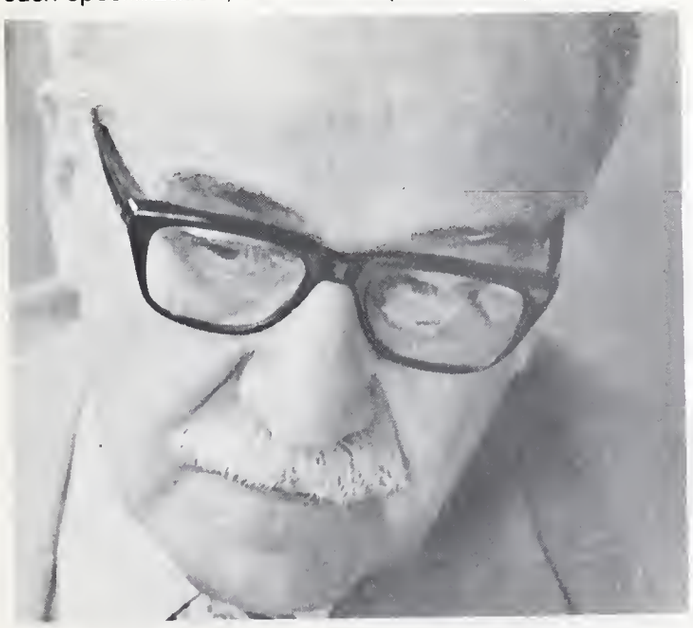
During Dr Rodarte's years of service, Texas led the way in the enactment of an impaired physician (sick doctor) statute, which allows the board to discipline physicians who are unable to practice medicine with reasonable skill and safety.

Looking back, looking ahead

"During my years of practice of medicine, the physician/patient relationship has changed some, but the practice of medicine has definitely changed," Dr Rodarte comments.

In the past, there were a few specialists and group practice clinics. Most physicians were general or family practitioners, general medical or surgical physicians. These physicians not only took care of the health of the whole family, but also were consulted regarding personal and family matters. There existed a very close relationship between the physician and the patient's family. The physician was looked upon with reverence and often as a member of the family.

Now, he feels, patients are aware of modern advanced medical and surgical technology as well as the application of the modern scanner and computerized tomography tests, and they expect these techniques to be used. "With such specialization, some of the personal rapport or contact of the patients with their physician is lessened."



However, Dr Rodarte believes the individual physician still can have an enormous influence as to what kind of relationship he or she establishes and maintains with the patient. He definitely concurs that the location, setting, and type of practice the physician chooses will influence the physician/patient relationship.

Texas physicians are now facing factors related to the rising cost of providing health care and the tremendous cost of malpractice insurance that sometimes force physicians to practice defensive medicine, the high cost of hospitalization, the new computerized tests necessary for precise diagnoses, and the possibility of the federal government eventually getting complete control of providing health care for everyone.

Pressure also exists on the state and federal levels to authorize nonmedical practitioners to treat and diagnose illnesses and prescribe drugs. "I foresee a continued erosion of the authority of physicians as leaders of the health care team." Dr Rodarte goes on to say that nurse practitioners, physician assistants, emergency paramedics, optometrists, and others are seeking the authority to diagnose diseases, prescribe drugs, and otherwise practice medicine.

A man of reflection and experience, Dr Rodarte has brought distinction to Texas Medicine, and his colleagues recognized that when they selected him for TMA's carefully chosen Distinguished Service Award in 1978.

Ideas, issues take form at TMA fall conference

John M. Smith, Jr, MD, San Antonio physician and TMA's past president, listens to discussions between scheduled conference meetings at the University of Texas' Joe C. Thompson Center in Austin.

More than 900 physicians and guests attended TMA's fall conference in Austin Sept 22–24.

During the conference, AMA Board of Trustees chairman Robert Hunter, MD, urged physicians to keep three simple things in mind regarding cost containment.

Dr Hunter told physicians to ask themselves: Am I making appropriate use of the facilities where the patient is being housed? Are the diagnostic procedures necessary for good quality of care? Are the procedures I am suggesting to this patient cost effective?

Texas physicians are to be congratulated on their efforts in controlling the rising cost of medical care, Dr Hunter said.

AMA attorney Betty Jane Anderson called the FTC's attempts to find the AMA in violation of federal anti-trust laws the biggest legal challenge facing doctors today. "We may have to go all the way to the Supreme Court, but I cannot believe that medicine will eventually lose this battle," she predicted.

Discussing trends in continuing medical education, Jackson W. Riddle, MD, director, division of educational policy and development, said that the time and cost of continuing medical education, the substance and content of continuing medical education courses, and the feasibility of adequately evaluating those courses must be seriously considered.

Dallas physician Louis W. Conradt, MD, vice president and medical director of Blue Cross Blue Shield of Texas, confers with a colleague between conference sessions.

Carlos Godinez, MD, McAllen, (left) TMA Executive Board member, and Clifford Burross, MD, Wichita Falls, (center) Vice Speaker of the TMA House of Delegates, review issues with John P. Coughlin, San Angelo physician and chairman of TMA's Council on Tax-Financed Health Care Programs.

Continuing medical education is big business, Dr Riddle said, adding that approximately $1 billion is now spent on continuing medical education programs annually.

During the conference, Texas officials also addressed TMA members on developments of the Texas Institute for Medical Assessment, health planning, and the new Texas Medical Liability Trust.

Sen John Tower spoke briefly to the session and answered physicians' questions. He said the United States may have to reinstate the Selective Service System. Sen Tower also said he is opposed to Senatorial representation for the District of Columbia.

Discussing issues of the 95th US Congress, Harry N. Peterson, JD, director of the AMA's department of legislation, said he doesn't know when the issues have been more diverse and complex and have had more possible impact on patient care.

The federal cost containment legislation has become riddled with exemptions and exceptions. It's now down, he said, but it should not be counted out completely.

Certain issues will never fade away and will almost certainly be considered by the 96th Congressional session, Peterson said. Those include Medicare and Medicaid amendments, medical manpower, medical education, and national health insurance.

Program chairmen, officers of sections and related medical groups, and committee chairmen meet with members of TMA's Council on Annual Session for a program planning session for TMA's 1979 Annual Session in Dallas.

Mylie Durham, MD, (left) TMA president, talks with Ed Schmidt, MD, Pecos, chairman of TMA's Council on Medical Legislation.

After addressing the TMA conference, Sen John Tower talks with Mylie Durham, MD, Houston, TMA's president.

Sen John Tower of Texas answers questions at a news conference held at the Joe C. Thompson Center before he addresses the TMA Conference on Medical Issues.

TMA conference participants coming to and leaving TMA's fall conference at the Joe C. Thompson Center in Austin on the grounds of the University of Texas campus.

ACUPUNCTURE UPHELD AS PRACTICE OF MEDICINE BY TEXAS COURT

Facts

The Texas State Board of Medical Examiners has revoked the license to practice medicine of two physicians. The Board suspended the orders and placed both physicians on probation for ten years. The Board's order was upheld by a district court.[1]

The Board charged the physicians with violation of the Medical Practice Act for permitting an unlicensed person to practice medicine by the use of acupuncture in their offices. This was in violation of Section 12 of Art 4505, VATS, which states, "The Texas State Board of Medical Examiners may refuse to admit persons to its examination and to issue a license to practice medicine to any person for:

> Section 12. The impersonation of a licensed practitioner, or permitting or allowing, another to use his license, or certificate to practice medicine in this State, for the purpose of treating, or offering to treat, sick, injured, or afflicted human beings.
>
> Section 15. The aiding or abetting, directly or indirectly the practice of medicine by any person not duly licensed to practice medicine by the Texas State Board of Medical Examiners.

A man employed by the Board visited both physicians using a fictitious name and a complaint of bursitis.

One physician checked his blood pressure, examined him using a stethoscope, and then introduced him to an Oriental woman. She placed four needles in his right shoulder area and one needle by the right small finger. The physician was present.

She manipulated the needles and she and the physician left the room. She returned on three occasions to manipulate the needles. The physician returned with her two times. She returned and removed the needles. The Board employee paid the receptionist for the treatment and left.

In the second case, the employee discussed his ailment with the physician who led him to an examining room and left. An Oriental man entered the examining room, placed a bowl of needles on a table, and departed.

He returned and inserted four needles in the top of the right shoulder and three in the lower portion of the shoulder and left the room.

The physician checked on the patient momentarily during the treatment, asking if it hurt. Fifty minutes later, the needles were removed and the Board employee departed after paying $50 to the receptionist.

Separate hearings for each appellant were held before the Board. The physicians filed separate but identical petitions in the district court and the two cases were consolidated for trial.

Before these investigations, the Board had issued a policy statement including acupuncture in the practice of medicine under the Texas Medical Practice Act.

The Board stated, "Any person performing acupuncture who is not a licensed physician . . . would be practicing medicine without a license . . ." and "a licensed physician may not delegate to any person not licensed to practice medicine in the State of Texas the authority to perform acupuncture."

The physicians alleged numerous grounds for error in their appeal. The appeals court upheld the Board's order.

Discussion

The physicians urged the court to consider several constitutional arguments. The physicians said the Board's order was an unnecessary and unreasonable governmental interference with the rights of a physician to practice medicine, violating the right of equal protection by the law, and violating a patient's right of free choice of treatment.

The court responded that there was a reasonable relation in the law and Board's regulation for protection of the public from the unlicensed, fraudulent, and incompetent practice of medicine.

The court said the right to practice medicine is subordinate to the police power of the state; that the Board's actions were designed to protect the general health, safety, and welfare of its citizens; and that there was no doubt of the potential harm from this fraud or incompetence in the practice of medicine.

Although acupuncture treatment may not be readily available, the court said this situation does not present a sufficient reason for holding that unlicensed persons may perform the procedure. The Board's actions do not stop any patient from receiving acupuncture treatments.

The court said by requiring only licensed physicians to administer acupuncture treatments, the Board had fulfilled its duty to insure the competency of those practicing medicine. Further, Texas may not constitutionally pro-

scribe acupuncture within its boundaries, but the State Board of Medical Examiners may permissibly prescribe requirements about the qualifications and licensure of the person who is to administer the acupuncture treatments.

The court found no merit in the physicians' contention that they had been denied equal protection of the law because the Board had condoned the use of nonlicensed and nonmedical persons to administer inoculations and to draw blood, and that to censure the doctors for using nonlicensed personnel to administer acupuncture unconstitutionally discriminated against the appellants. The court said it was not involved in the area of fundamental rights in the case and that the reason for the classifications are manifest.

The court agreed with the Board that there are very important distinctions between the use of acupuncturists and the use of nonlicensed personnel to administer injections and draw blood. A physician generally has a thorough knowledge of the treatment prescribed, its effects, and the possible dangers inherent in its use, and can easily ascertain whether such treatment is properly performed by the assistant.

This is not the case with acupuncture, the court said. "Western society now realizes that in certain instances, acupuncture is of some benefit in the treatment of patients. However, all physicians licensed in this state do not have a general knowledge of the acupuncture treatments, making it difficult to discern a competent acupuncture practitioner from a fraudulent purveyor of the medical art."

The court held that it was properly within the power of the Board to regulate acupuncture as the practice of medicine and that the State of Texas and the Board would betray their public trust to permit unlicensed persons to practice medicine.

In the future, acupuncturists, may be licensed to practice their arts in Texas, the court stated. However, the legislature should make that determination and not the courts.

The cancellation and revocation of the physician's licenses to practice medicine probated for ten years with certain conditions is not cruel and unusual punishment, the court declared. A violation of any of the grounds of probation would be grounds for cancellation or revocation. The physicians are free to practice medicine now as they were prior to the Board's action with the exception that they may not permit unlicensed individuals to perform acupuncture, the court added.

Conclusion

In this case a court has upheld the Board of Medical Examiners' policy that acupuncture is included in the practice of medicine under the Texas Medical Practice Act. The court also ruled that any person performing acupuncture must have a license to practice medicine and that a physician cannot delegate to any person not licensed to practice medicine in Texas the authority to perform acupuncture.

Ace Pickens
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

[1]*Thompson, et al v Texas State Board of Medical Examiners*, No 1146, In the Court of Civil Appeals, Twelfth Supreme Judicial District of Texas, July 27, 1978.

The "Green Apple Quick-Step" didn't necessarily involve green apples...

Years ago, the cramps and pain of smooth muscle spasm and the embarrassment of associated diarrhea were sometimes referred to as the "green apple quick-step."

But green apples don't necessarily have anything to do with this common problem. No matter what it's called now, irritable colon and functional diarrhea are still very much a part of the everyday scene. Fortunately, so is Trocinate (thiphenamil HCl).

Trocinate acts rapidly to relieve the misery of smooth muscle spasm, and arrest acute functional diarrhea.* Effective blood levels can be achieved with Trocinate often within 30 minutes. And when effective, as little as two to four doses will bring relief.

One 400 mg tablet every four hours works for acute episodes. And once relief is achieved, it usually can be maintained with a reduction in dosage, utilizing the 100 mg tablets. Additionally, Trocinate is **not** an anticholinergic; a particularly significant benefit for patients with glaucoma.

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ACTIONS:
Trocinate is a potent antispasmodic and smooth muscle relaxant that acts like papaverine on smooth muscle. Trocinate exerts a strong local anesthetic effect on contact with mucous membranes.

INDICATIONS*
Trocinate is indicated for relief of smooth muscle spasm.

In Gastroenterology: for relief of pain and discomfort due to smooth muscle spasm associated with spastic colitis, irritable colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders.

LIMITATIONS OF EFFECTIVENESS
On the basis of the opinions of the National Academy of Science and National Research Council Committees and other information, the Food and Drug Administration considers this drug to be limited in its effectiveness, as follows:

Probably effective, as follows: May be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders); and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon). To be effective the dosage must be titrated to the individual patient's needs.

CONTRAINDICATIONS:
Trocinate is contraindicated in obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, paralytic ileus, pyloroduodenal stenosis, etc.); intestinal atony of elderly or debilitated patient; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis.

WARNINGS:
Use in Pregnancy—The safety of the use of Trocinate during pregnancy has not been established.

Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug may be inappropriate and possibly harmful.

DOSAGE AND ADMINISTRATION:
Adult: Initially, 400 milligrams. May be repeated four hours later. Trocinate acts very promptly and, when effective, relieves discomfort with two to four doses. Relief may usually be maintained with reduced frequency of dosage.

The safety and efficacy of Trocinate in children has not been determined, and Trocinate should not be administered to children.

MANAGEMENT AND OVERDOSAGE:
In twenty years of usage of Trocinate, side-effects have been so very infrequent that no typical symptoms and physical signs of overdosage have become known. Consequently, any untoward symptoms or physical signs should be counteracted by appropriate palliative therapy.

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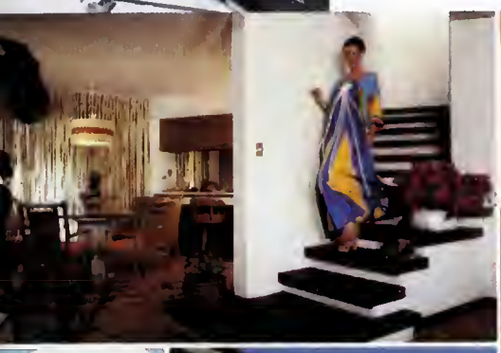

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The key to Persantine efficacy: *give enough...long enough!*

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(dipyridamole)

*INDICATIONS—Based on a review of this drug by the National Academy of Science-National Research Council and/or other information, FDA has classified the indication as follows:

"Possibly" effective: For long-term therapy of chronic angina pectoris. Prolonged therapy may reduce the frequency or eliminate anginal episodes, improve exercise tolerance, and reduce nitroglycerin requirements. The drug is not intended to abort the acute anginal attack.

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS—No specific contraindications are known.

PRECAUTIONS—Since excessive doses can produce peripheral vasodilation, the drug should be used cautiously in patients with hypotension.

ADVERSE REACTIONS—Adverse reactions are minimal and transient at recommended dosages. Instances of headache, dizziness, nausea, flushing, weakness or syncope, mild gastrointestinal distress and skin rash have been noted during therapy. Rare cases of what appeared to be an aggravation of angina pectoris have been reported, usually at the initiation of therapy. On those uncommon occasions when adverse reactions have been persistent or intolerable, withdrawal of medication has been followed promptly by cessation of undesirable symptoms.

DOSAGE AND ADMINISTRATION—The recommended dosage is 50 mg (2 tablets) three times a day, taken at least one hour before meals. In some cases higher doses may be necessary but a significantly increased incidence of side effects is associated with increased dosage. Clinical response may not be evident before the second or third month of continuous therapy.

Tablets of 25 mg

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In the TMA Library

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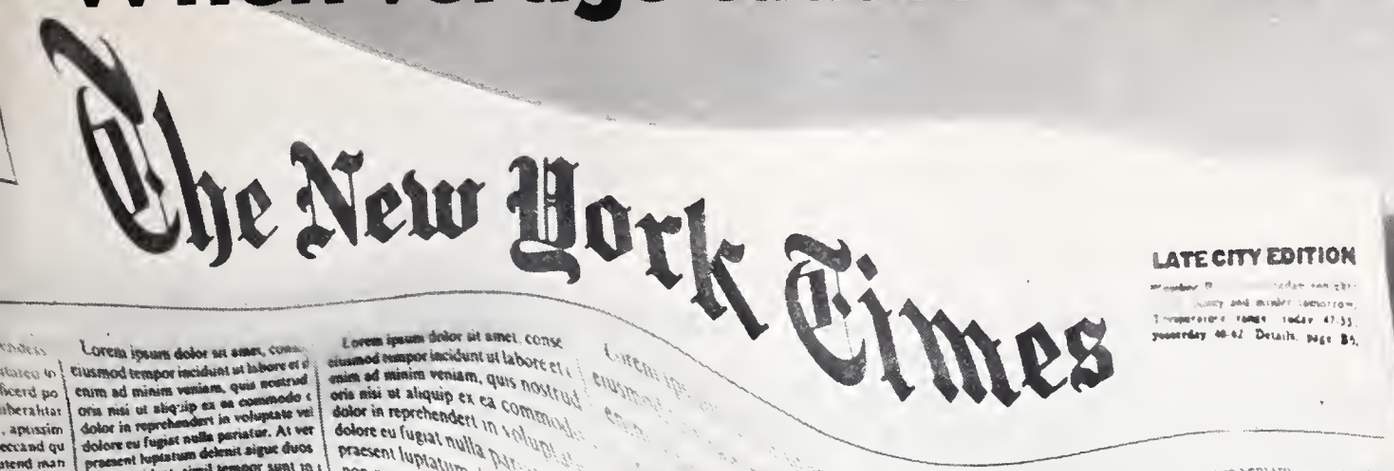

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CURRENT NATIONAL MEETINGS

AMERICAN ACADEMY OF PHYSICAL MEDICINE AND REHABILITATION. The 40th Annual Assembly of the American Academy of Physical Medicine and Rehabilitation and the 55th Annual Session of the American Congress of Rehabilitation Medicine will meet concurrently at the Hyatt Regency Hotel in New Orleans Nov 12–17, 1978. The scientific program includes seminars on pharmacology for physiatrists and other related topics, numerous scientific paper presentations, and various mini courses. Many of the major seminars, forums, and mini courses will offer continuing medical education credit hours. Contact: C Herold, 30 N Michigan, Suite 922, Chicago, IL 60602.

THE NATIONAL JOINT PRACTICE COMMISSION. The 3rd National Conference on Joint Practice sponsored by the National Joint Practice Commission will be held in Dallas at the Fairmont Hotel Nov 9–11, 1978. Guest speakers, Tom E. Nesbitt, MD, President of the AMA, and Barbara L. Nichols, RN, MS, President of the ANA, will discuss, "The New Climate for Collaboration between the AMA and ANA." Conferees will hear the first report to the health professions on the NJPC's demonstration project to introduce joint or collaborative practice in four participating hospitals. Nationally known medical and nurse educators will participate in a forum on how to educate nurses and physicians for collaborative practice through interdisciplinary education. Numerous workshops will be conducted on a wide range of topics related to nurse-physician collaboration and the establishment of conditions conducive to collaboration. Contact: William B Schaffrath, PhD, Dir, 35 East Wacker Dr, Suite 1990, Chicago, IL 60601.

TEXAS RESEARCH INSTITUTE OF MENTAL SCIENCES. "Violence and the Violent Individual" will be the topic of discussion at the 12th Annual Symposium of the Texas Research Institute of Mental Sciences Nov 1–3, 1978, at the Shamrock Hilton Hotel in Houston. The keynote speaker will be former attorney general and author of *Crime in America*, Ramsey Clark. The three-day conference will deal with the etiology of violent behavior, measurement and prediction of violence, and treatment of the violent individual. Contact: J Ray Hays, TRIMS, Texas Medical Center, Houston, TX 77030.

CALENDAR OF LISTINGS

■ Denotes Texas Meetings

NOVEMBER

ACADEMY OF PSYCHOSOMATIC MEDICINE, Atlanta, Nov 15–19, 1978. DW Sanford, 4902 Tollview Dr, Rolling Meadows, IL 60008.

AMERICAN ACADEMY FOR CANCER EDUCATION, New Orleans, Nov 30–Dec 2, 1978. J Horton, MB, Head, Div of Oncology, Albany Medical College, Albany, NY 12208.

AMERICAN ACADEMY OF PHYSICAL MEDICINE AND REHABILITATION, New Orleans, Nov 12–17, 1978. C Herold, 30 N Michigan Suite 922, Chicago, IL 60602.

AMERICAN ASSOCIATION OF BLOOD BANKS, New Orleans, Nov 4–9, 1978. Ben F Peake, 1828 L St, NW, Washington, DC 20036.

AMERICAN ASSOCIATION FOR CLINICAL IMMUNOLOGY AND ALLERGY, Miami Beach, FL, Nov 12–16, 1978. H. Silber, PO Box 912, Omaha, NE 68101.

AMERICAN ASSOCIATION OF GYNECOLOGICAL LAPAROSCOPISTS, Hollywood, Fla, Nov 16–19, 1978. Jordan M Phillips, MD, 11239 S Lakewood, Downey, Calif 90241.

AMERICAN ASSOCIATION FOR HAND SURGERY, Hollywood, Fla, Nov 3–5, 1978. GL Lucas, MD, 2704 Marshall Court, Madison, WI 53705.

AMERICAN ASSOCIATION FOR THE STUDY OF LIVER DISEASES, Chicago, Nov 7–8, 1978. MA Rothschild, MD, VA Hospital, 408 1st Ave, New York, NY 10010.

AMERICAN CANCER SOCIETY, INC, New York, Nov 9–11, 1978. Lane W Adams, 777 Third Ave, New York 10017.

AMERICAN CONGRESS OF REHABILITATION MEDICINE, New Orleans, Nov 12–17, 1978. Creston C Herold, 30 N Michigan Ave, Chicago 60602.

AMERICAN HUMANE ASSOCIATION, Miami, Nov 26–29, 1978. Kathern Bond, 5251 S Roslyn St, Englewood, Colo 80110.

AMERICAN MEDICAL ASSOCIATION, Conference on Sodium and Potassium in American Foods, Washington, DC, Nov 2–3, 1978. Stephanie C Crocco, PhD, Dept of Foods and Nutrition, AMA, 535 North Dearborn St, Chicago, IL 60610.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, St Petersburg Beach, Fla, Nov 8–12, 1978. Lorraine Loesel, 1740 Broadway, New York 10019.

AMERICAN SOCIETY OF CYTOLOGY, Miami, Nov 7–11, 1978. WR Lang, MD, Sec, Health Sciences Center, 130 S Ninth St, Suite 1006, Philadelphia 19107.

AMERICAN SOCIETY OF MAXILLOFACIAL SURGEONS, Hollywood,

Fla, Nov 5–10, 1978. CA Janda, MD, 120 Oakbrook Center Mall, Oak Brook, IL 60521.

AMERICAN SOCIETY OF PLASTIC AND RECONSTRUCTIVE SURGEONS, Hollywood, FL, Nov 5–10, 1978. Dallas F Whaley, CAE, 29 E Madison, Chicago 60602.

ASSOCIATION FOR ACADEMIC SURGERY, Cleveland, Nov 12–15, 1978. E Sugarbaker, MD, Univ of Miami School of Medicine, Box 520875, Biscayne Annex, Miami, FL 33152.

ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES, Washington, DC, Nov 26–30, 1978. RADM Walter Welham, MC, USN Ret, 10605 Concord, Suite 306, Kensington, Md 20795.

CENTRAL SOCIETY FOR CLINICAL RESEARCH, Chicago, Nov 2–4, 1978. GM Schiff, MD, Christ Hospital Institution of Medical Research, 2141 Auburn Ave, Cincinnati, OH 45219.

GERONTOLOGICAL SOCIETY, San Francisco, Nov 18–22, 1978. E Kaskowitz, One Dupont Circle, Suite 520, Washington, DC 20036.

MEDICAL SOCIETY OF THE US & MEXICO, Guadalajara, Jalisco, Mexico, Nov 15–18, 1978. Carolyn Parsons, 3161 N Pantano Rd, Tucson, Ariz 85715.

NATIONAL FIRE PROTECTION ASSOCIATION, Montreal, Nov 13–15, 1978. Charles S Morgan, 470 Atlantic Ave, Boston 02210.

■ NATIONAL JOINT PRACTICE COMMISSION, Dallas, Nov 9–11, 1978. WB Schaffrath, PhD, Dir, 35 E Wacker Dr, Suite 1990, Chicago 60601.

RADIOLOGICAL SOCIETY OF NORTH AMERICA, Atlanta, Nov 25–30, 1978. One Mony Plaza, Syracuse, NY 13202.

SOUTHERN MEDICAL ASSOCIATION, Georgia World Congress Center, Nov 11–14, 1978. 2601 Highland Ave, Birmingham, Ala 35205.

SOUTHERN THORACIC SURGICAL ASSOCIATION, South Hampton, Bermuda, Nov 9–11, 1978. JK Trinkle, MD, 7703 Floyd Curl Dr, San Antonio, TX 78284.

■ TEXAS MEDICAL ASSOCIATION, House of Delegates, Austin, Tex, Nov 11–12, 1978. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin 78701.

■ TEXAS RESEARCH INSTITUTE OF MENTAL SCIENCES, 12th Annual Symposium, "Violence and the Violent Individual," Houston, Nov 1–3, 1978. J Ray Hays, PhD, 1300 Moursund St, Houston, TX 77030.

WESTERN SURGICAL ASSOCIATION, Phoenix, Nov 12–15, 1978. PE Hodgson, MD, Dept of Surgery, Univ of Nebraska Medical Center, 42 & Dewey, Omaha, NE 68105.

DECEMBER

AMERICAN ACADEMY OF DERMATOLOGY, San Francisco, Dec 2–7, 1978. Bradford W Claxton, 820 Davis St, Evanston, Ill 60201.

AMERICAN ACADEMY OF PSYCHOANALYSIS, Palm Springs, Calif, Dec 1–3, 1978. S Baer, 40 Gramercy Park N, New York, NY 10010.

AMERICAN COLLEGE OF CHEMOSURGERY, San Francisco, Dec 1–2, 1978. G Berstein, MD, 5420 Barnes Ave NW, Seattle, WA 98107.

AMERICAN SOCIETY FOR DERMATOLOGIC SURGERY, San Francisco, Dec 5, 1978. DE Bormley, MD, 210 S Grand Ave, Glendora, CA 91740.

SOUTHERN SURGICAL ASSOCIATION, Hot Springs, Va, Dec 4–6, 1978. W Dean Warren, MD, Emory Univ, Atlanta, GA 30033.

■ SOUTHWESTERN GYNECOLOGIC ASSEMBLY, Dallas, Dec 7–9, 1978. 3630 Noble Ave, Dallas 75204.

JANUARY

AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS, Phoenix, Ariz, Jan 20–26, 1979. JL Normoyle, 2100 W Harrison St, Chicago, IL 60612.

AMERICAN SOCIETY OF CONTEMPORARY MEDICINE AND SURGERY, Las Vegas, Jan 14–19, 1979. John G Bellows, 6 N Michigan Ave, Room 1110, Chicago, IL 60602.

AMERICAN SOCIETY OF CONTEMPORARY OPHTHALMOLOGY, Las Vegas, Jan 14–19, 1979. John G Bellows, 6 N Michigan Ave, Room 1110, Chicago, IL 60602.

AMERICAN SOCIETY OF LAW AND MEDICINE, San Diego, Jan 25–27, 1979. A Doudera, 454 Brookline Ave, Boston, MA 02215.

NATIONAL ASSOCIATION OF PRIVATE PSYCHIATRIC HOSPITALS, Marco Island, Fla, Jan 14–18, 1979 Robert Thomas, 1701 K St, NW, Suite 1205, Washington, DC 20006.

SOUTHERN SOCIETY FOR PEDIATRIC RESEARCH, New Orleans, Jan 17–20, 1979. Kenneth A Starling, MD, Baylor College of Medicine, Houston, TX 77030.

■ TEXAS MEDICAL ASSOCIATION, Winter Conference, Austin, Jan 19–21, 1979. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, TX 78701.

NOVEMBER

Anesthesiology

Title: BAY-CAP III—Anesthesia and Surgery for Congenital and Valvular Heart Disease

Sponsors: Dept of Anesthesiology, Baylor College of Medicine, Houston

Location of course: Houston Marriott Motor Hotel, Houston

Date: Nov 9–10, 1978

Duration: Continuous; 2 days; Thursday–Friday

Fee: $150

Designed for: Specialists in Anesthesiology

Credit: Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Fred M. Taylor, Director, Office of Continuing Education, Baylor College of Medicine, Texas Medical Center, Houston 77030

Basic Sciences: Pharmacology

Title: Fundamentals of Practical Therapeutics

Sponsors: Departments of Pharmacology and Medicine, Baylor College of Medicine, Houston

Location of course: Baylor Auditorium, Baylor College of Medicine

Date: Nov 4, 1978–April 28, 1979

Duration: Intermittent; Saturdays

Fee: $150

Designed for: Specialists in Internal Medicine, Family Practice and General Medicine

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 3 hours per session, 72 total hours

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, Texas Medical Center, Houston 77030

Cardiovascular Disease

Title: Contemporary Clinical Cardiology

Sponsors: Presbyterian Medical Center; Council on Clinical Cardiology, American Heart Association; Division of Continuing Education, The University of Texas Health Science Center at Dallas

Location of course: Auditorium, National Center, American Heart Association, Dallas

Date: Nov 17–18, 1978

Fee: $200

Credit: Category 1, AMA Physician's Recognition Award; 15 hours

Contact: Dr. Barrett Steelman, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas 75235 (214) 688-2166

Emergency Care

Title: Comprehensive Management of Urgent Medical Problems—An Approach to the Diagnosis and Treatment of the Adult Emergency Room Patient

Sponsors: UT Health Science Center at Houston; UT Medical School at Houston, School of Allied Health Sciences and Division of Continuing Education

Location of course: Stouffer's Hotel, Greenway Plaza, Houston

Date: Nov 13–17, 1978

Duration: Continuous; 5 days; Monday–Friday; 8 AM–5 PM

Fee: $325

Enrollment: Maximum, 150

Credit: Category 1, ACEP; AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 40 hours

Contact: Division of Continuing Education, UTHSC at Houston, Box 20367, Houston 77025

Family Medicine

Title: Children's Orthopaedics for Family Physicians and Pediatricians

Sponsors: Texas Scottish Rite Hospital for Crippled Children, The University of Texas Health Science Center at Dallas

Location of course: Hay T. Clark Memorial Auditorium, Texas Scottish Rite Hospital for Crippled Children, 2222 Welborn St, Dallas

Date: Nov 18, 1978

Duration: Continuous; 1 day; Saturday; 8 AM–4:30 PM

Fee: $40

Designed for: Specialists in Family Practice, Pediatrics

Credit: Category 1, AMA Physician's Recognition Award; 7 hours

Teaching methods: Audiovisual materials, lecture, open question

Contact: Dennis R. Wenger, MD, Program Director, Texas Scottish Rite Hospital for Crippled Children, 2222 Welborn St, Dallas 75219

General Medicine

Title: The Care of the Terminally Ill Patient

Sponsors: Dallas County Health Dept; Methodist Hospitals of Dallas; Texas Nursing Home Administrators Licensure Board

Location of course: Weiss Auditorium, Methodist Hospitals of Dallas, Oakenwald & Stemmons Ave, Dallas

Date: Nov 17, 1978

Duration: Continuous; 1 day; 8 AM–5:30 PM

Fee: $35, advanced; $40, on site

Enrollment: Maximum, 300

Contact: Shirley Fleshin, RN, Dallas County Health Dept, 1936 Amelia Court, Dallas 75235

Title: Clinical Seminar: A New Class of Diuretics with Uricosuric Activity

Sponsors: Division of Continuing Education, Southwestern Medical School, The University of Texas Health Science Center at Dallas

Location of course: Adolphus Hotel, Dallas

Date: Nov 16–17, 1978

Fee: none

Credit: Category 1, AMA Physician's Recognition Award; 9 hours

Contact: Norma Wilcox, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas 75235 (214) 688-2166

Genetics

Title: Genetic Screening and Counseling: Legal and Ethical

Issues

Sponsors: Genetics Center, North Texas State University; The University of Texas Health Science Center at Dallas

Location of course: Dallas Hilton, Dallas

Date: Nov 2–4, 1978

Fee: $35; students, $15

Credit: Category 1, AMA Physician's Recognition Award; 14 hours

Contact: Dr. Steve Applewhite, Genetics Center, NTSU, Denton, TX 76201 (817) 788-2011, ext 57

Neurology

Title: Current Therapy of Common Neurological Disorders

Sponsors: Dept of Neurology, The University of Texas Health Science Center, Southwestern Medical School at Dallas; A. Webb Roberts Center for Continuing Education

Location of course: Zale Lecture Hall, UTHSC at Dallas

Date: Nov 3–4, 1978

Fee: Practicing physicians, $160; Residents, $80

Credit: Category 1, AMA Physician's Recognition Award; 14 hours

Contact: Norma Wilcox, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas, 75235 (214) 688-2166

Otolaryngology

Title: Seminar on Cancer of the Head and Neck

Sponsors: Dept of Otolaryngology, Southwestern Medical School, The University of Texas Health Science Center at Dallas; A. Webb Roberts Center for Continuing Education

Location of course: Zale Lecture Hall, UTHSC at Dallas

Date: Nov 30–Dec 2, 1978

Fee: Practicing physicians, $200; Residents, $75

Credit: Category 1, AMA Physician's Recognition Award

Contact: Carolyn Kirk, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas 75235 (214) 688-2166

Psychiatry

Title: Phenomenology and Treatment of Alcoholism

Sponsors: Dept of Psychiatry, Baylor College of Medicine, Houston

Location of course: Shamrock Hilton Hotel, Houston

Date: Nov 30–Dec 1, 1978

Duration: Continuous; 2 days; Thursday–Friday

Fee: $175

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Fred M. Taylor, Director, Office of Continuing Education, Baylor College of Medicine, Texas Medical Center, Houston 77030

Radiology & Radioisotopes

Title: Postgraduate Workcourse in Diagnostic Ultrasound

Sponsors: Dept of Radiology, Baylor College of Medicine, Houston

Location of course: Ben Taub General Hospital, Houston

Date: Nov 6, 1978–Dec 1979

Duration: Intermittent: Mondays

Fee: $350

Designed for: Radiologists

Credit: Category 1, AMA Physician's Recognition Award; 40 hours

Contact: Fred M. Taylor, Director, Office of Continuing Education, Baylor College of Medicine, Texas Medical Center, Houston 77030

Title: Cardiovascular Nuclear Medicine

Sponsors: Dept of Radiology, Southwestern Medical School, The University of Texas Health Science Center at Dallas

Location of course: Fairmont Hotel, Dallas

Date: Nov 11–12, 1978

Fee: Practicing physicians, $225; Residents, $100

Credit: Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Carolyn Kirk, Office of Continuing Education, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas 75235 (214) 688-2166

Urology

Title: 23rd Annual Clinical Conference—Cancer of the Genitourinary Tract; Eleventh Annual Special Pathology Program

Sponsors: The University of Texas System Cancer Center M. D. Anderson Hospital and Tumor Institute; National Cancer Institute; American Cancer Society, Texas Division, Inc.

Location of course: Shamrock Hilton Hotel, Houston

Date: Nov 2–4, 1978

Duration: Continuous; 3 days; Thursday–Saturday

Fee: $50

Designed for: Specialists in Primary Care, Oncology, Urology

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 14 hours

Contact: George R. Blumenschein, MD, Associate Director, Education, The University of Texas System Cancer Center, M. D. Anderson Hospital and Tumor Institute, Texas Medical Center, Houston 77030

Title: UTMB Urology Conference

Sponsors: Continuing Medical Education,Short Courses, UT Medical Branch, Galveston

Location of course: Galvez Hotel Motel, 21st & Seawall, Galveston

Date: Nov 8–11, 1978

Duration: Continuous; 3 days; 20 hours

Fee: $140

Designed for: Specialists in Primary Care, Urology

Enrollment: Maximum, 130; minimum, 75

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 20 hours

Contact: NeKee McNulty, Coordinator, CME-Short Courses, 2nd Floor, Gail Borden Bldg, UT Medical Branch, Galveston 77550

Basic Sciences: Microbiology & Immunology

Title: 5th Annual Texas Medical Center Symposium on Infectious Diseases and Microbiology-Newer Antibiotics, Chemotherapeutic Agents and Vaccines-Use in Clinical Practice

Sponsors: UT Health Science Center at Houston, UT Medical School at Houston, Baylor College of Medicine, UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute

Location of course: UT Medical School Lecture Hall 1, Texas Medical Center, Houston

Date: Dec 2, 1978

Duration: Continuous; 1 day; 8 am–5 pm

Fee: $50

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 7 hours

Contact: Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston, TX 77025

Cardiovascular Disease

Title: Selected Topics in Cardiology

Sponsors: Division of Continuing Education, UT Health Science Center at Houston

Location of course: Methodist Hospital Auditorium, 6516 Bertner, Houston

Date: Dec 6–7, 1978

Duration: Continuous; 2 days; Wednesday–Thursday; 8 total course hours

Fee: None

Designed for: General practitioners; Specialists in Family Medicine, Cardiovascular Disease

Enrollment: Open

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 8 hours

Teaching Methods: Audiovisual materials, lecture, open question

Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Obstetrics & Gynecology

Title: Human Sexual Differentation and Function

Sponsors: Southwestern Gynecologic Assembly, Dallas

Location of course: Sheraton-Dallas Hotel

Date: Dec 7–9, 1978

Duration: Continuous; 3 days; 5 hours instruction per day; Thursday–Saturday; 15 total course hours

Fee: $150; Residents, $50

Designed for: Specialists in Obstetrics & Gynecology

Enrollment: Maximum, 250

Credit: Category 1, AMA Physician's Recognition Award; 15 hours; American College of Obstetricians and Gynecologists, 25 cognates

Teaching methods: Audiovisual materials, lecture, open question, panel

Contact: E.B. Mendel, MD, President, Southwestern Gynecologic Assembly, 3630 Noble Ave, Dallas 75204

Ophthalmology

Title: Sixth Cataract Surgical Congress

Sponsors: Department of Ophthalmology, Baylor College of Medicine, Houston

Location of course: Galleria Plaza, 5333 Westheimer, Houston

Date: Dec 2–7, 1978

Duration: Continuous; 6 days

Fee: To be announced

Designed for: Specialists in Ophthalmology

Credit: Category 1, AMA Physician's Recognition Award; 34 hours

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Orthopedic Surgery

Title: The Challenge of the Lumbar Spine

Sponsors: UT Health Science Center at San Antonio School of Nursing, San Antonio Association of Occupational Health Nurses, Wilford Hall Medical Center

Location of course: St Anthony Hotel, San Antonio

Date: Dec 15–16, 1978

Duration: Continuous; 2 days

Fee: $75

Designed for: Specialists in Neurosurgery and Orthopedics

Credit: Category 1, AMA Physician's Recognition Award

Teaching methods: Audiovisual material, lecture, panel

Contact: Office of Continuing Education, UTHSC at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284 512/691-6295

Pediatrics

Title: 3rd Annual Course in Pediatrics for the Practitioner

Sponsors: UT Health Science Center at San Antonio

Location of course: San Antonio Convention and Visitors Bureau, 210 South Alamo, San Antonio

Date: Dec 15–17, 1978

Duration: Continuous; 3 days

Fee: $165

Credit: Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Office of Continuing Education, UTHSC at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284 512/691-6295

Psychiatry

Title: Phenomenology and Treatment of Alcoholism

Sponsors: Department of Psychiatry, Baylor College of Medicine, Houston

Location of course: Shamrock Hilton Hotel, 6900 Main, Houston

Date: Dec 7–8, 1978

Duration: Continuous; 2 days; Thursday–Friday; 16 total course hours

Fee: $175

Designed for: General practitioners; Specialists in Psychiatry

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours

Teaching methods: Audiovisual materials, lecture, open question, panel

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston

SPECIFICATIONS OF TMA COMMITTEE ON PROFESSIONAL LIABILITY INSURANCE ARE EXCEEDED BY API

Back in 1976, the Chairman of the TMA Committee on Professional Liability Insurance wrote to the membership regarding liability protection, and the following are quotations from that letter:

"In evaluating organizations which offer solutions each member should review the background of the organization, its sponsors, participants and capability to perform or provide the proper outlet for the physician consistent with the goals to be accomplished.

In evaluating malpractice insurance companies such things as financial structure, reserves, management, board of directors, license to do business in Texas, ratings, claims experience, type of policy offered, classification procedure, rates of coverage, stability and ability to pay claims years in the future should be checked out by the physician or his advisers. The company that is here today but may be gone tomorrow could seriously jeopardize the physician's financial future."

That was good advice in 1976 and it remains so today.

Remember Doctor, you are the one that is sued — not the insurance carrier. Judgement is rendered against you, and if your insurer does not pay, then you must. Obviously, the track record of the company protecting your practice is of vital importance.

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1. Assets must be maintained in approved securities or investments	YES
2. Policy form and rates must be approved by State Insurance Commission	YES
3. Texas requires that 90-days prior, written notice of cancellation or premium increase be given physician policyholders	YES
4. Policy is fully reinsured in excess of $25,000 each occurrence	YES
5. Experienced, professional insurance management	YES
6. Policyholder and claimant protection in event of financial failure	YES
7. Established, physician peer review committees for applicants and claims	YES
8. Policyholder contribution to surplus (required)	$1,000 each Only once. Returnable
9. Implementation expense (paid out of Doctor's contribution to surplus)	$77,158.00
10. Interest paid on certificate of contribution to surplus	ANNUAL 6%
11. Underwriting and investment income accrues to benefit of physician policyholders	YES
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†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:
King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

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Brief Summary
INDICATIONS
For use as adjunctive therapy in the treatment of peptic ulcer. IT SHOULD BE NOTED AT THIS POINT IN TIME THAT THERE IS A LACK OF CONCURRENCE AS TO THE VALUE OF ANTICHOLINERGICS/ANTISPASMODICS IN THE TREATMENT OF GASTRIC ULCER. IT HAS NOT BEEN SHOWN CONCLUSIVELY WHETHER ANTICHOLINERGIC/ANTISPASMODIC DRUGS AID IN THE HEALING OF A PEPTIC ULCER, DECREASE THE RATE OF RECURRENCES, OR PREVENT COMPLICATION

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective:

May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders); and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon).

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis. WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with: autonomic neuropathy; hepatic or renal disease; ulcerative colitis—Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon; hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension, hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.
It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis). Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. ADVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia, increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness, dizziness; insomnia; nausea, vomiting; impotence; suppression of lactation, constipation, bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs.
Usual Dosage: Bentyl 10 mg. capsule and syrup: *Adults*: 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children*: 1 capsule or teaspoonful syrup three or four times daily. *Infants*: ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg: *Adults*: 1 tablet three or four times daily. Bentyl Injection: *Adults*: 2 ml. (20 mg.) every four to six hours intramuscularly only. NOT FOR INTRAVENOUS USE. MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used.
Product information as of October, 1976

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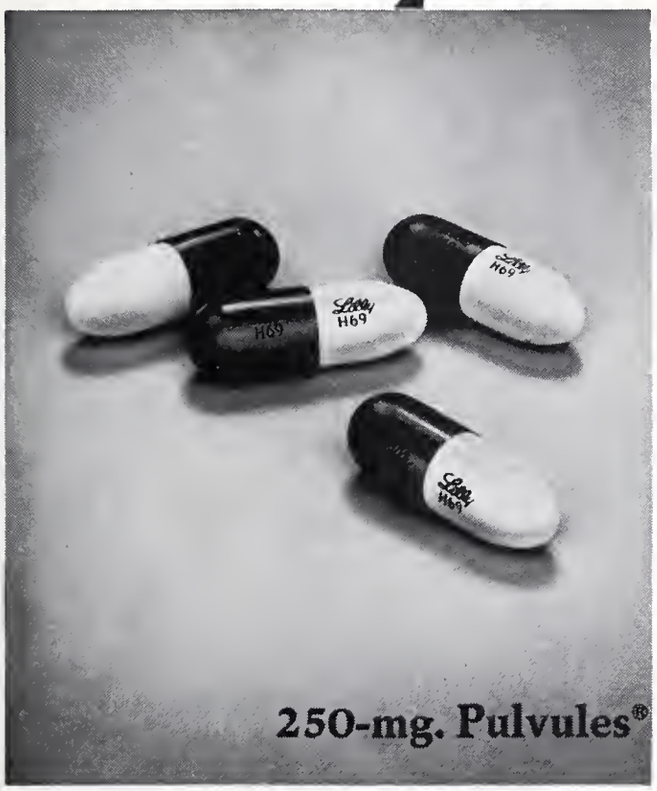

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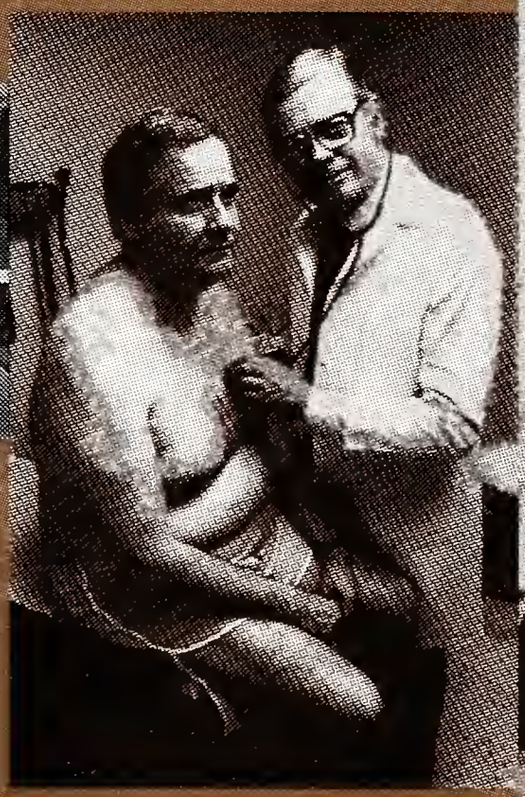

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synonymous with relief of anxiety

Please see next page for summary of product information.

Librium® 5mg, 10mg, 25mg capsules
chlordiazepoxide HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended

Contraindications: Patients with known hypersensitivity to the drug

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral–Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*, severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

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Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 μg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions: Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

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ORAL SUSPENSION

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Please see brief summary of prescribing information on facing page.

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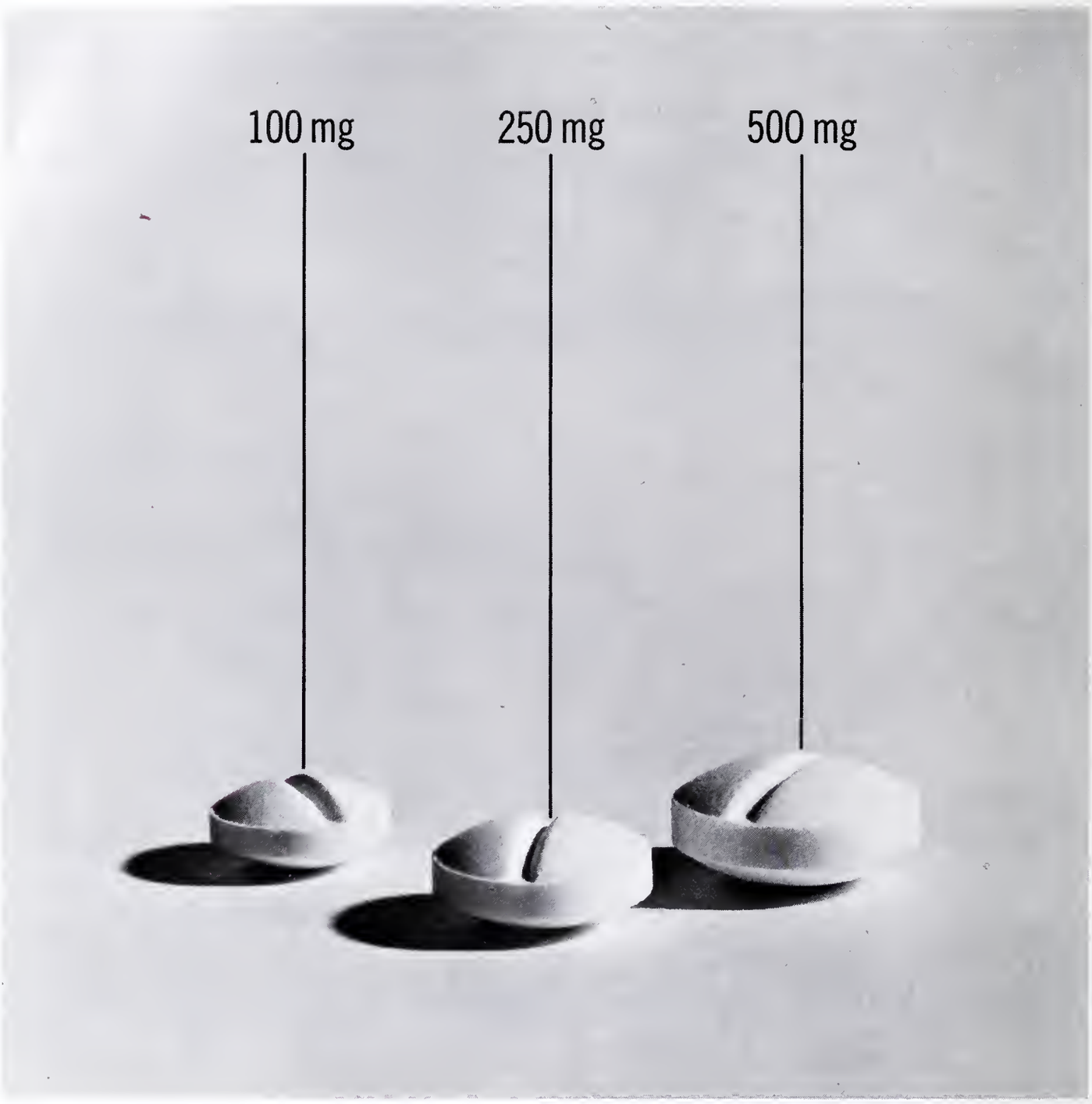

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Progress with appendicitis in the young patient

Luke W. Able, MD

Surgery for appendiceal perforation with peritonitis in 315 infants and children is reported. Children present after perforation because activities or other illnesses divert early attention; also, the diagnosis can be obscure. Radiological studies can add evidence of disease. Preoperative preparations prevent hyperthermia and renal shutdown. Gridiron incisions and relaxing anesthesia facilitate operative treatment and quick recovery. Antibiotics administered parenterally and locally help prevent infections. No eviscerations and only two abscesses have occurred.

Since 1954, 1,606 patients at Texas Children's Hospital have been operated upon because of a preoperative diagnosis of probable acute appendicitis. Acute appendicitis was positively diagnosed by tissue study in 1,460 (90%) of these patients. More than half (745) of the appendices were perforated when the patients presented; 315 of these were my personal patients, and they are the major basis for this presentation. This article describes the reasons for delay that led to perforation, the progress and ancillary studies in the obscure diagnoses, the treatment, and the complications. Fig 1 lists these patients by age and sex.

Appendiceal symptoms and signs may not be noticed because of the obvious signs of another disease such as pharyngitis, croup, otitis media, chickenpox, measles, encephalitis, etcetera, or by a family bout of gastroenteritis, "flu," and so forth. Obesity obscures the signs of appendicitis.

The infant or young child does not communicate his early symptoms. The child and the teenager are often too young or too busy to complain of epigastric or right lower quadrant pain; parents notice anorexia or protection of the right lower quadrant of the abdomen. Eventually, as acute inflammation spreads and perforation occurs, peritonitis causes signs and symptoms. When the perforation seals off from the general peritoneal cavity, the patient improves and continues activity until repeated perforations again slow his actions and appetite. Diarrhea occurs when the sigmoid seals off the appendix. The clinical picture may be that of gastroenteritis, but the patient continues to be ill after his diarrhea stops.

1. Age and sex of patients with perforated appendices.

Age	No. Patients	No. Females	No. Males
0–2	29	10	19
2–6	102	47	55
6–11	128	54	74
11–16	52	18	34
17–18	4	1	3
Total	315	130	185

Abdominal auscultation is an important examination, especially in evaluation of the complicating ileus. An absence of bowel sounds, audible pulse, and transmitted breath sounds suggests a perforated appendix with peritonitis or an apprehensive reaction ileus. Bowel sounds are reduced after palpation of an acutely inflamed organ—the appendix, intestines, or adnexa.

Infantile uncooperativeness may prevent examination. Intravenous titration with pentobarbital or other nonnarcotic sedation allows the evaluation of the infant or child who screams and holds his muscles rigid. The end point of the sedation titration is when the child goes to sleep and nontender areas can be touched without response.

Rectal examination is done if the diagnosis is uncertain. It may yield the only positive finding. If atypical diarrhea continues, rectoscopy may show a local acutely inflamed area that corresponds to the rectal tenderness.

Appendicitis is a clinical diagnosis, but radiography reinforces the diagnosis. Scoliosis with concavity to the right is suggestive of psoas spasm (Fig 2). Stoppage of intestinal air in the lower ileum suggests terminal ileum dysfunction possibly caused by adjacent appendicitis. Less frequently, free air is seen in an appendiceal abscess. The "radiographic clincher" is a fecolith in the region of the appendix (Fig 3). Fecolith is diagnostic in the symptomatic patient, and indicates obstructive appendiceal disease and perforation. At operation, if the appendix is perforated, the fecolith should be found in the appendix or peritoneal cavity. A fecolith left in the abdomen will cause suppuration and drainage until it is removed.

Contrast radiographic studies are not needed in recognized cases of acute appendicitis. In the atypical case, a barium enema occasionally is done. Nonvisualization of the appendix by itself is not diagnostic, because 10–15% of noninflamed appendices do not fill.[1] However, nonvisualization or only partial visualization together with fixation, indentation, and irritation of the cecum adds further evidence of appendicitis (Fig 4). Flattening or indentation of the cecum at the base of the appendix produces a "3-sign."[2] Similarly, indentation, narrowing, and irritation seen on fluoroscopy of the terminal ileum may be caused by appendicitis as well as other things.

Any appendicitis in children is indication for emergency

appendectomy, but concomitant pneumonia, croup, or other diseases may have a priority of primary treatment. The febrile patient is not rushed to the operating room without preoperative preparation. A reduction of the temperature to below 39.4C (103F) reduces the incidence of hyperthermia. A cool operating room, a cool water mattress, ice bags along the patient's side, and cool irrigating solution should be available before anesthesia and operation are started on a febrile patient. A reduction of temperature has occurred with the aspiration of the purulent peritoneal exudate and cool peritoneal lavage.

The dehydrated patient who has vomiting, diarrhea, and anuria is a candidate for postoperative renal shutdown. An hour or more of hydration has prevented postoperative anuria and hypertension.

Once the diagnosis of probable perforation has been made, antibiotic therapy is started as indicated along with hydration and antihyperthermic treatment. Similarly, antibiotic and hydration therapy is started whenever surgery is delayed. Administration of a penicillin and an amino-

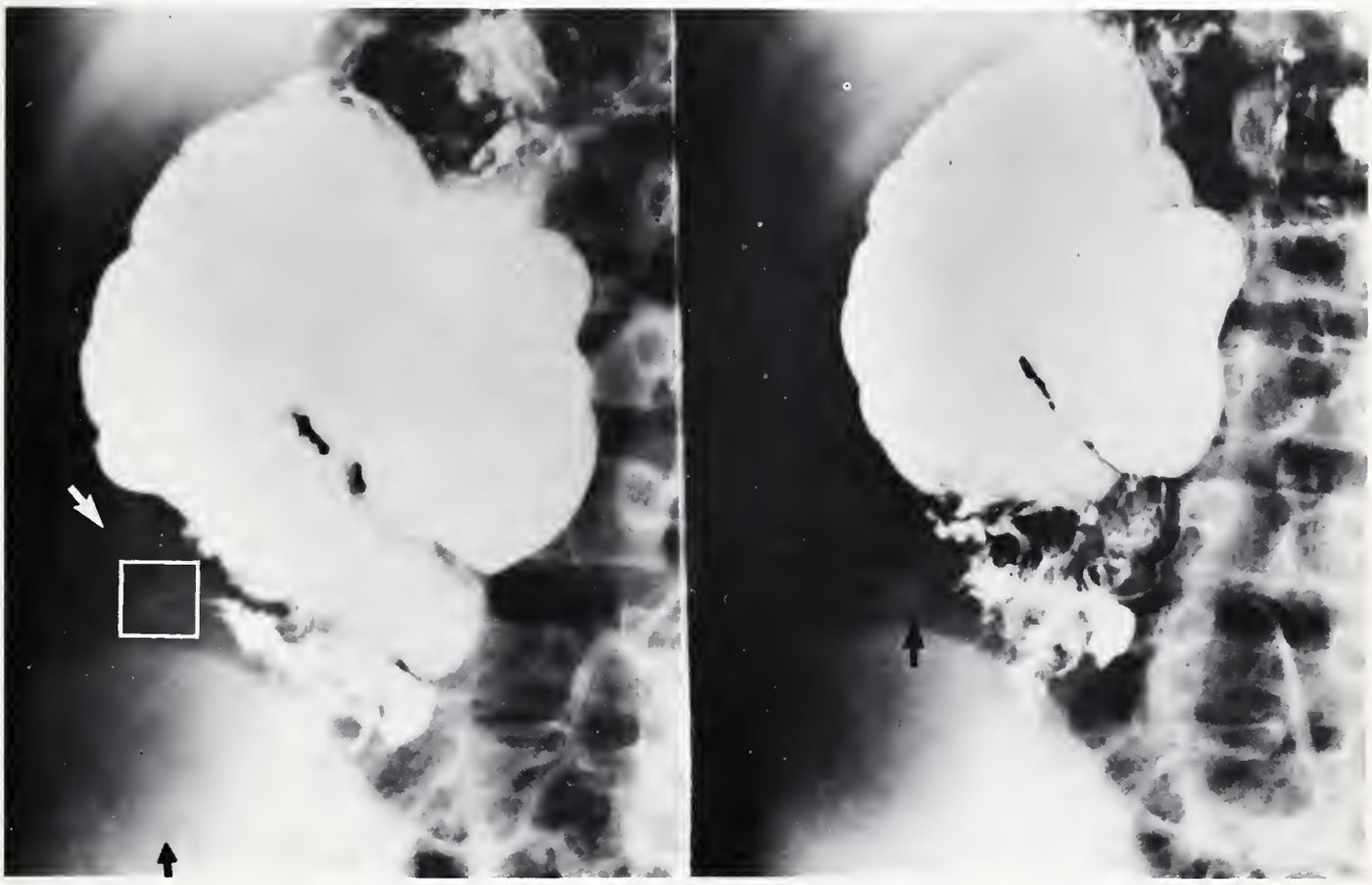
2. A radiograph showing scoliosis and a fecolith (arrow) in a 5-year-old who was hyperactive and asymptomatic except for a temperature of 38.3C (101F) and a white blood cell count of 19,000. His appendix was gangrenous.

3. This radiograph shows a pelvic and diagnostic laminated fecolith. This appendix was gangrenous.

glycoside is appropriate until cultures or clinical course indicate a change. Crystalline penicillin, 100,000 units/kg/day and gentamycin, 5–7 mg/kg/day, are started according to the obvious extent of the peritonitis and the renal function.

All surgery for appendicitis has been done through a gridiron incision. A transverse skin incision is made near McBurney's point over the appendiceal mass. Additional exposure is secured by a medial hockey-stick extension of the external oblique fascia-splitting incision onto the middle of the rectus sheath. A reverse curve on the underlying layer of the rectus sheath further widens the fascial opening. The internal oblique and transversalis muscles are opened in the line of their fibers, and the hypogastric nerve is pushed aside. The rectus muscle is retracted medially. The posterior sheath and peritoneum are opened transversely, and the surgeon should remember that the bladder is medial to the inferior epigastric vessels. Muscle-relaxing anesthetics facilitate exposure without muscle trauma. In cases of generalized peritonitis,

4 Flat and upright radiographs show the remains of a barium study made elsewhere. The vague fecolith (arrow) is obvious, and the films also show nonfilling of the appendix, indenture of the cecum, and fixation indicated by failure of the cecum to descend (upright radiograph).



the entire abdomen is aspirated by a sump suction tube, and irrigating fluid is flushed thoroughly over all peritoneal surfaces.

Cultures are taken for aerobic and anaerobic bacteria. A smear of any questionable exudate can verify the presence of bacteria. Foul fecal odor comes from aerobes; a rotten-egg odor indicates anaerobic infection. New sterile-packaged commercial media with applicators facilitates cultures.

If treatment with antibiotics has not been started, it should be available in the operating room and started as soon as perforation and peritonitis are confirmed. This saturates the tissues at the time of their contamination. Routinely, antibiotics are used for five to ten days postoperatively.

Antibiotic flushes discourage surface growth of bacteria until systemic antibiotics can saturate the tissues. A solution of bacitracin, 50,000 (100 U/ml), kanamycin in 1 gm (2 mg/ml), and neomycin, 1 gm (2 mg/ml) diluted in 500 ml of saline is used to flush the involved peritoneal areas. The excess solution flows out through the incision so that only the amount that wets the surfaces remains. Further, multiple layer flushes of the wound, especially the fat, are done with 150–200 ml of this triple antibiotic solution.

Wound closure originally was with interrupted silk sutures, but this gave way to chromic and now to continuous polyglycolic acid sutures 2-0 or 3-0 for the deeper layers and 4-0 or 5-0 interrupted for the superficial fascia and subcutaneous closure. There have been no eviscerations or dehiscences.

In recent years, a drain has been used only once when the base of the cecum was so indurated by inflammation that inversion of the appendiceal stump was not possible. In one patient, a superficial wound abscess developed following diffuse purulent peritonitis. This probably happened because we used all the antibiotic flushing solution in the peritoneal cavity and had none available during the wound closure. One subdiaphragmatic abscess on the left side occurred in a 2-year-old patient whose appendiceal peritonitis had been obscured by chickenpox for five days. Both abscesses responded to drainage. This infection rate is less than 1%.

Nasogastric drainage is used during surgery and continued as needed postoperatively. Preferably, it is continued until the intestines are working. Early postoperative turning and passive and active movements are routine. It moves the peritoneal exudate over the peritoneal surfaces; loculation is less and antibiotics can disburse into this fluid. Beginning on the second postoperative day, the patient assumes the knee-chest position intermittently. Every time the patient moves, fluid in the intestines moves into another segment of intestine, stimulating peristaltic activity.

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Texas: teenage childbearing and contraceptive need

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In a year's time, one of every nine Texas women 15 to 19 years of age will become pregnant. Teenage childbearing accounts for more than one fifth of all Texas births. At least a quarter million Texas adolescent girls are sexually active, and more than half do not use birth control regularly. Like their male peers, many of these girls are ignorant of basic reproductive and contraceptive facts. Furthermore, most young women are reluctant to ask physicians for prescription contraceptives.

Like US birthrates in general, the birthrate among Texas teenagers[1] has declined since the early 1960s. However, the decline has been restricted to older adolescents, that is, 18- and 19-year-olds.[2] Birth rates did not decrease among girls 14 to 17 years of age, and actually increased slightly for girls younger than 14. As a group, teenage mothers account for one fifth of all US births; yet two thirds of all teenage pregnancies are unintentional.[3] Of all legally-induced abortions reported in the United States, 34% were performed on girls younger than 20 years old.[4] In Texas, 21% of all 1976 births were to mothers younger than 20 (Fig 1), and 35% of all induced abortions occurred in this age group.[5]

A recent publication of the Alan Guttmacher Institute reports that girls 15 years of age or younger have a higher incidence of pregnancy-related complications, including pregnancy-induced hypertension, premature delivery, and smaller-than-average infants. Despite increased maternal and neonatal morbidity, pregnant teenagers are twice as likely as women in their early 20s to go without prenatal care during the first six months of pregnancy. Babies born to teenagers are twice as likely to be premature and of low birth weight as infants born to mothers in their early 20s. Adolescent mothers bear 19% of all US infants; yet, they deliver 26% of the nation's low-birth-weight babies. Approximately 6% of "first" babies born to girls 13 and 14 years of age died by their first birthday. Furthermore, children of mothers 15 and younger are 2.4 times more likely to be born with neurological defects than infants born to mothers in their 20s.[3]

1 Births reported in Texas during 1970 and 1976.

	Total No. of Births	No. Births to Girls ≤ 19 yr.	% Total Births to Girls ≤ 19 yr.	No. Births to Girls ≤ 14
1970	230,624	46,527	20%	968
1976	218,447	45,960	21%	1,094

Bureau of Vital Statistics, Texas Dept of Health

Not only does the offspring of the teenage mother experience greater health risks, but the mother herself is more likely to die or suffer pregnancy-related illness or injury than mothers in their early 20s. Nationwide, maternal death rates from complications of pregnancy, labor, and delivery are 60% higher for women who become pregnant before they are 15, while the rates for 15- to 19-year-olds are 13% greater than for mothers in their early 20s. In addition to facing higher health risks for themselves and their children, teenage mothers continue to face social disapproval, financial hardship, and difficulty in finding work and child care facilities. Teenage mothers are likely to begin childbearing without having had the opportunity to acquire the skills and education to earn an adequate income. Pregnancy is the most common reason given by teenage girls for dropping out of school. Ninety percent of mothers 15 years of age and younger never complete high school, contributing to high unemployment rates, low income, and welfare. If a teenage girl marries before, during, or after her pregnancy, she is more likely to divorce than her older counterpart,[3] and teenage mothers are seven times as likely as other teenage girls to attempt suicide.[6]

Texas: A Quarter Million at Risk

Surveys confirm what most family planning providers already know: A large proportion of teenage girls are sexually active, and the average age at first intercourse is decreasing. Most sexually active adolescents do not use contraception regularly and are ignorant about the likelihood of pregnancy. Of the estimated 911,262 teenage girls in Texas in 1977, an estimated 276,149, or 30%, were sexually active (Fig 2).

Half of the sexually active, never-married teenagers interviewed did not use a contraceptive the last time they had intercourse—a fact indicating their ignorance of risks and the inaccessibility of family planning services. Eighty percent of the teenagers questioned said they had had sexual relations without taking contraceptive measures.[3]

An estimated 45,960 infants were born to teenage mothers in Texas during 1976; Texas girls 14 years old and younger delivered 1,094 babies.[3,7] In 1976, induced abortions ended about 14,000 teenage pregnancies, in addition to 10,592 spontaneous abortions among teenagers. In summary, one of every nine Texas girls, ages 15 through 19, was pregnant in 1976, and 26% of all

sexually active female teenagers gave birth or aborted in that year.[8]

Almost a third of the infants born to Texas teenagers in 1976 are classified "illegitimate" in state records, and the state health department estimates that teenagers were responsible for 54% of the 1976 newborns in that classification.[9] The younger the mother, the more likely is her child to be illegitimate; nearly three fourths of the births to Texas girls 14 years of age and younger were classified illegitimate in 1976 (Fig 3).

"Illegitimacy" is not used here in a judgmental sense; rather, it is a consistent indicator of risks associated with maternal and infant health and serves as a crude measure of planned births. Because certain ethnic groups tend to legitimate or "cover-up" pregnancies of unmarried women, however, legal illegitimacy can account only for a fraction of the unplanned births. Approximately 40% of the infants born to married girls younger than 18 are premaritally conceived. Although not all illegitimate births are unintentional, national studies have indicated that only 10% of the pregnancies of 15- through 19-year-old girls were intentional. Approximately 50% of all births to women younger than 20 years are "accidental," meaning that 22,980 unplanned births occurred in Texas in 1976.[3]

2. Sexually active teenage girls in Texas.

Age	% Sexually Active Girls in Each Age Group*	Estimated No. of Sexually Active Girls† 1977	1978
13	10	12,567	12,310
14	17	22,017	21,742
15	24	30,979	31,632
16	31	40,497	40,722
17	35	47,550	46,533
18	43	55,462	59,452
19	51	67,077	65,632
13–19 Total		276,149	278,023

*See reference number 3.
†The author's technical notes explaining the derivation of these figures will be provided on request to *Texas Medicine*, 1905 N Lamar Blvd, Austin, TX 78705.

3. "Illegitimate" births among Texas girls, age groups 14 years and younger and 19 years and younger.

TEXAS	No. of Illegitimate Births to Girls ≤ 19 Years	% Births Illegitimate Among Girls ≤ 19 Years	No. of Illegitimate Births to Girls ≤ 14 Years	% Births Illegitimate Among Girls ≤ 14 Years
1970	11,105	24%	674	70%
1976	14,460	32%	812	74%

The Need to Inform Male Teenagers

Family planning programs typically have ignored sexually active teenage boys, partially because there is no quantifiable means to assess which services are needed. Finkel and Finkel estimate 65%, or 442,818, of Texas boys 15 to 19 years old are sexually active, and half of the sexually experienced high school boys began sexual activity before the age of 13, so one would assume that a significant proportion of the 263,611 boys 13 and 14 years old in Texas also are sexually active. These figures are more alarming when one considers the results of one study of the sexual and contraceptive knowledge, attitudes, and behavior of male teenagers. At last intercourse, 55% of the respondents said they had neither used contraceptives nor relied on withdrawal or their partner's douching. Fifty-four percent of the boys did not know at which point in the ovulatory cycle a girl is most likely to conceive.[10]

There is a need for educational programs for boys as well as girls. In 1973, 45 out of every 2,000 15- to 19-year-old boys in the US fathered a child.[11] In 1974, 24% of the live births to women younger than 20 were fathered by teenagers.[12] Obviously boys' ignorance of reproductive physiology and effective contraception significantly increases the number of unwed and unplanned teenage pregnancies, but there has been no coordinated effort in Texas to provide information and services directed toward teenage boys.

Provision of Services

In 1976, 68,157 Texas women under 20 received contraceptive services from organized family planning providers —less than 25% of the 276,149 in need in 1977. Two thirds of these teenage patients were 18 and 19 years of age.[13] Approximately 62,812[14] teens received family planning services from private physicians, while an estimated 145,180, or 55%, of the sexually active teenagers did not receive contraceptive services.[15]

Approximately $6 million in Title 10 funds provided under the Public Health Service Act were granted to Texas family planning providers in fiscal year 1977. Although the legislation specifies that a patient's economic status should not be a barrier to the availability of family planning services under Title 10, the Title 10

appropriations are based on the number of low income women in need of family planning services. This allocation formula does not consider the family planning needs of young persons whose total family earnings are above the low and marginal income range.

The Texas Department of Human Resources (TDHR) reimburses contracting agencies for family planning services provided to persons eligible under Titles 19 and 20 of the Social Security Act. TDHR estimates that 30% of all 15- to 19-year-old girls in Texas are eligible for family planning services under Titles 19 and 20. Of these, approximately 48,302 received services in 1976. There is a $14.5 million ceiling on Title 20 family planning expenditures for contracted services, which means that even if providers had the programmatic capacity, financial limitations would prohibit them from serving all eligible clients. Title 19 does not have such a ceiling; however, Title 19 eligibility criteria are much more restrictive than Title 20 criteria. Furthermore, many teens, fearful that their parents will become aware of their sexual activity, are reluctant to use Medicaid benefits.

With limited grant monies, eligibility requirements, and funding ceilings, many programs must turn to other revenue sources, such as clinic fees. Young persons from middle class and high income families may face economic and other barriers in obtaining family planning services. Aside from the fact that total family income does not necessarily reflect the financial situation of the individual teenager, at least 40% of all teenagers do not know what their family income is. Furthermore, most adolescents would refuse to involve parents in their decision to obtain family planning services. One recent study has shown that the overwhelming majority of teens do have personal income, from allowances and employment, which could be used to determine clinic fees. Even a minimal fee would be difficult for some young persons, and such hardship must be considered by family planning providers who charge patient fees.[16]

Torres reports that although most teenagers can pay for some of their clinic costs, they still need organized family planning services. A teenager is unlikely to seek contraceptive services from her primary health care provider, if that provider is not the family planning clinic. Sixty-nine percent of the low-income respondents in a study of teenagers who used contraceptives said their families relied on private physicians for health care, but 86% of the respondents had received their first contraceptive prescription from a family planning clinic.[16] These data indicate that organized family planning services are crucial even when clients can pay for private medical care.

What Can Be Done

Options offered by parents, professionals, and communities can affect profoundly the lives of sexually active teenagers and their offspring. Most teenagers are not aware of effective birth control methods when they become sexually active, and societal taboos prevent them from approaching reliable sources for information.

For most teens, organized family planning programs are the initial source of prescription contraceptives. However, the first clinic visit for family planning usually follows several months of unprotected intercourse, and often young persons go to family planning clinics because of "pregnancy scares."[3]

Because the private physician often examines young patients who eventually will visit family planning clinics, he should initiate discussion of sexuality and birth control while emphasizing his respect for confidentiality. Studies have shown that many women believe that physicians should initiate such counseling.[17] Many practitioners have learned that young women are willing to discuss their sexual activity and discuss contraception. The family physician also can encourage parents to open communications with their children, and because of his stature in the community, his support is extremely important in the community attempting to provide formal sex education for youths and their parents.

Individual medical practitioners traditionally have endorsed community family planning providers and can urge professionals to support family planning legislation and appropriations. Such support is economically as well as medically justifiable. For example, the average annual cost for each fully subsidized family planning client is $70, an appealing figure compared to the estimated $855 paid by TDHR for each birth to a welfare recipient. The $855 does not include state payments for dependent child support. There are at least 11,500 teenage mothers receiving welfare benefits in Texas.[18]

Education and access to effective contraception will not end premarital conception, nor will it end welfare dependency for many teenage mothers. Knowledge of birth control and access to family planning will not stop many young persons from dropping out of school; family

planning alone can not guarantee anyone a prosperous future. If the need for family planning services for young persons is ignored or denied, however, tragic human costs are inevitable.

Conclusion

Teenage pregnancy in Texas has reached epidemic proportions. Young persons of both sexes are beginning sexual activity at earlier ages, despite widespread ignorance of basic reproductive biology and sporadic use of birth control methods. Immediate, realistic solutions to problems of teenage pregnancy include sex education and more family planning services to teens.

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14. This figure, based on national data about patterns of medical care delivery, may be an overestimate. Texas in 1976 had a lower physician-to-population ratio, 1:714, than the nationwide ratio of 1:575. From: Goodman LJ: *Physician Distribution and Medical Licensure in the US, 1976: Regional, State, County, Metropolitan Areas.* Chicago, American Medical Association, 1977, pp 23–24. Assumption: Twenty-five percent (60,391) of the 241,565 sexually active girls, ages 15 through 19 years, in Texas obtained contraceptive services from private physicians in 1977. Seven percent (2,421) of the 34,584 sexually active 13- and 14-year-old girls in the state obtained services from private physicians. Therefore, 62,814 represents the 1977 number of sexually active girls, 13 through 19 years old, in Texas.
15. Of course, at any time there are young women who are pregnant or trying to conceive, and thus would not be in need of family planning services. This slight overestimate may be offset by the need for services in the group that will enter the sexually active group soon as well as girls younger than 13 years old who are sexually active.
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Education of the child with juvenile-onset diabetes mellitus: an example of cost containment

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Juvenile-onset diabetes mellitus is a chronic illness that requires understanding by both patient and medical personnel, and also their willingness to work together as a team. Their understanding can come about only by the development of goals for the patient which take into account not only new knowledge and skills, but also how the patient and family feel about themselves and the illness. Through this structured educational process, the patient can manage his disease more effectively. The results of our study suggest that effective patient education can result in decreased hospitalization as well as significant cost containment.

Although much has been written about the pathophysiology, control, and complications of diabetes, relatively little has been reported concerning health education for the diabetic patient and its potential impact on his or her future care. We, as well as others,[1-9] have long felt that proper education of the diabetic is an integral part of the overall management plan. Our general guidelines for education are:

*E*valuate patient's current knowledge about diabetes
*D*ecide on goals and transmit these to the patient
*U*nderstand the need to teach attitudes as well as facts and skills
*C*arry out a systematic course of education
*A*rrange for testing and feedback
*T*ry to develop a system of mutual respect and trust
*I*ncrease patient responsibility
*O*ffer continuing assistance
*N*eed to develop a system of continuing education

The process of such education encompasses three major areas: knowledge, skills, and attitudes. Certain knowledge and skills are mandatory for the diabetic patient and his family. These include the ability to draw up insulin, to give insulin shots, to recognize when one is sick, and to check urine. Unless the patient and his family are equipped with these survival facts and skills, the diabetic cannot be cared for at home.

Beyond this survival level, there are home management guidelines, a group of facts and skills that the patient can acquire, depending on his or her individual intelligence. These include knowledge of normal and altered carbohydrate metabolism, understanding of the type of insulin used and its action and duration, managing ketosis, regulating insulin dose, and understanding of the role of diet and exercise in blood sugar control. Much of this is based on the premise that people who are better informed make better decisions. But understanding implies more than putting together a collection of facts and skills. Part of understanding is the ability to incorporate this new condition into one's life. This involves the teaching of appropriate attitudes regarding diabetes. Our attitudinal objectives include acceptance of diabetes as a permanent disease—control is possible, cure is not; and the beliefs that the diabetic is not alone and help is available anytime, that a few restrictions and constraints are necessary, that he/she is able to do almost anything a nondiabetic can do, and that self-help is essential.

The rationale for structured education is that the diabetic who has an understanding of diabetes can make better decisions concerning management. In a prospective study, Delbridge[6] found that understanding of the nature and management of diabetes as well as the attitudes toward and acceptance of diabetes positively correlated with the level of control. One way to measure the level of control is to tabulate the number of hospitalizations during a given time. Kidson[10] found that many admissions were related to vomiting, hypoglycemia, or ketoacidosis which could have been handled or prevented by simple measures at home. Further, he speculated that appropriate education may prevent many hospitalizations.

We have evaluated two groups of patients with juvenile-onset diabetes—those who had their initial diabetic education elsewhere or had not received any structured education (group 1), and those who had received diabetic education at onset in our program (group 2). The patients were matched for age, sex, general educational level, and socioeconomic status; their course for the first five years of their disease was tabulated. The results (Fig 1) demonstrate that proper education resulted in few hospitalizations and thus decreased cost. If the average hospital stay were seven days, the difference between the two groups would represent 273 days. With an average cost of $150/day, this represents a total savings of $40,950, exclusive of office visits and physicians' fees.

Two cases further illustrate the value of education.

Case 1: An 8-year-old boy was seen at The University of Texas Medical Branch five years after juvenile-onset diabetes mellitus was diagnosed. He was inadequately educated at onset, which necessitated many outpatient visits and hospitalizations. The cost of inadequate education is listed in Fig 2. The total expense for visits, hospitalizations, and physician's fees during the first five years

of the disease was $8,323. With proper education during initial evaluation at UTMB, the total cost (outpatient visits and physician's fees) for the second five years, including the initial hospitalization, was $1,862.

Case 2: A 13-year-old white girl was referred for "diabetic education;" her disease had been diagnosed five years earlier. She had done well for the first two years of her illness, then intercurrent viral gastroenteritis caused mild ketosis and vomiting. This progressed to ketoacidosis and hospitalization. The sequence became recurrent, requiring nine hospitalizations during the next three years. She was seen at UTMB and, as an outpatient, received 3½ days of education. She was taught the effect of stress on insulin action and the values of small doses of regular insulin during ketosis. For the next two years, she required no further hospitalizations. The cost of prior hospitalizations amounted to about $3,000; the total cost for outpatient education was $200.

Miller and Goldstein[2] found that by using a centralized delivery system for care to diabetics in Los Angeles County, including extensive patient responsibility for care, they reduced costs by more than $1 million. This was realized principally by decreasing unnecessary admissions. Our experience also supports the concept that decreasing hospital admissions can decrease the cost of care. However, rather than centralization of care, we emphasize education and self-care of the child and his family using the physician as a consultant. We feel that our team approach by physician, nurse educator, and dietician, with individualized goals and objectives for each patient and family, offers a maximal learning experience. Furthermore, only when the disease process is well understood by all involved[12] can the education, and thus the cost containment, be effective.

1. Comparison of hospitalizations in two groups of patients. Those in group 1 were inadequately educated, and those in group 2 were educated at UTMB. The figures are for the first five years following onset of the disease. The approximate savings for the educated group was $40,950.

No. Admissions	Group 1 31 patients	Group 2 28 patients
0	10	18
1	6	5
2	4	2
3	3	1
4	3	1
5	5	1
Total admissions	60	21
Average admissions/year	.39	.15
No. of patient years	155	140

2. Cost for one patient for the first five years of his disease without education (A) compared to the cost for the next five years after appropriate education at UTMB (B).

A. Costs, first five years:	
Visits (31)	$ 410
Hospitalizations (7)	6,319
Physician's fees	1,594
Total	$8,323
B. Costs, second five years:	
Visits (15)	$ 67
Hospitalizations (1)	840
Physician's fees	955
Total	$1,862

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Detection, evaluation, and management of children exposed to lead

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In 1972, the federal government implemented a law requiring that children under age 6 who receive welfare benefits undergo annual physical examinations as part of the Title 19 Early Periodic Screening, Diagnosis, and Treatment (EPSDT) Program. While problems such as the vision and hearing abnormalities discovered were managed easily, many physicians were uncertain about how they should respond to elevated lead levels in the blood. This article outlines the elevated-lead problem and suggests methods of detection, interpretation of results, and modes of therapy.

Definitions

The Center for Disease Control of the US Department of Health, Education, and Welfare has provided the following definitions:[1]

Lead poisoning exists when a child has: (1) a confirmed (two successive determinations) blood lead level equal to or greater than 80 μg/100 ml whole blood with or without symptoms; (2) erythrocyte protoporphyrin (EP) level equal to or greater than 190 μg/100 ml whole blood with or without symptoms (EP is expressed in equivalents of free erythrocyte protoporphyrin [FEP]); (3) confirmed blood lead level of 50–79 μg/100 ml with compatible symptoms which cannot be explained otherwise or with associated abnormal EP, ALA-d (aminolevulinic acid dehydratase), urinary delta-aminolevulinic, or urinary coproporphyrin levels or abnormal calcium disodium EPTA (ethylenediaminetetraacetic acid) mobilization tests; or (4) EP levels of 110–189 μg/100 ml with compatible symptoms which cannot be explained otherwise.

Undue or increased lead absorption exists when a child has confirmed blood levels 30–79 μg/100 ml or an EP level of 60–189 μg/100 ml except where the elevated EP level is caused by iron deficiency.

Toxicity, with respect to effects of lead in children, includes subclinical manifestations of biochemical derangements (such as increased EP) as well as overt clinical manifestations (such as encephalopathy and Fanconi's syndrome).

Lead Sources

There are many environmental sources of lead, the commonest one for children (70% to 80%) being old paint, putty, or plaster.[2,3] Other common sources are soil and dust, which may account for the increased incidence of lead poisoning in the summertime when children play outdoors in dirt.[4] Gasoline combustion engines add 200,000 tons of lead to the atmosphere each year, resulting in higher-than-average lead levels in persons living near heavily traveled highways.[5] Other sources of lead include ceramic glazes, solder in tin cans, old lead water pipes,[6] paint chewed off pencils, certain inks (especially colored inks), ashes from substances that contained lead, such as battery casings, old painted boards, solder in radios, and effluent from lead smelters.[7-9]

Lead Absorption in the Body

From 30% to 40% of the lead ingested by a preschool child is absorbed, compared to only 5% to 10% of lead ingested by an adult.[10] About 5% of the lead ingested goes to soft tissue in the adult; the remainder goes to bone and is relatively inert. In contrast, about 33% absorbed by a child goes to the soft tissues of the bone marrow, kidney, and brain.[2] No one has adequately explained this difference in distribution. The lead going to the bone marrow disturbs heme synthesis and causes an increase of EP and decrease of ALA-d, two of the first detectable signs of lead toxicity. Several dietary factors affect the absorption of lead. Iron deficiency and low protein and calcium intakes seem to increase the percentage of lead absorbed.[11] The reason is undetermined.

Symptoms of Lead Poisoning

The case history provides the first clues of possible lead poisoning. Many of the children are toddlers who live in pre-World War II houses under disturbed family conditions and who ingest inedible objects, a behavior known as pica. The mother may complain that her child suffers anorexia, irritability, and mild abdominal pain.[12] These symptoms often are difficult to interpret in the toddler whose appetite is naturally decreased due to his decreased rate of growth, who is passing through the "terrible 2's," and who is not old enough to accurately describe pain. The asymptomatic child who has an affected sibling must be tested at intervals to determine if he has been ingesting lead. Because older children exhibit less hand-to-mouth activity, lead poisoning is less common in children more than 5 years old.

Signs that may suggest increased lead absorption are: (1) microcytic, hypochromic anemia that responds poorly, if at all, to iron therapy; (2) intestinal parasites, which

may indicate pica; (3) ingestion of certain drugs and lead-containing fuels—additional indications of pica; (4) clumsiness, especially if it is increasing; (5) vomiting without apparent infection or other cause; and (6) overt signs of poisoning, such as stupor, coma, and convulsions. Retarded children may exhibit pica far beyond the usual age limit for this habit; their blood lead levels should be checked.

Asymptomatic State

Several factors substantiate the importance of diagnosing lead poisoning in asymptomatic children: (1) children can become comatose in a matter of days; (2) illness resulting in acidosis may shift lead from bone to soft tissue; (3) ingestion of a large lead bolus can result in "sudden illness," and (4) during the summer, possibly because of increased exposure to lead-laden dust and soil, overt toxicity may slowly develop.[4] Because studies have shown that 60% to 80% of patients with lead-induced encephalopathy have permanent central nervous system (CNS) damage,[13,14] children with incipient lead levels need to be treated. Although some researchers disagree,[15,16] most studies have suggested that subclinical lead levels in the blood can result, over a prolonged period, in subtle changes of CNS function. These changes do not affect IQ but can cause fine motor incoordination, visual-motor-perceptual impairment, decreased peripheral nerve conduction, hyperactivity, and/or behavior disturbances.[5,17-22]

Screening Tests

Two procedures are used primarily to screen patients for lead poisoning: one for lead content in whole blood; the second for free erythrocyte protoporphyrin (FEP).

The whole blood lead determination should be repeated because accidental use of leaded glassware or the use of equipment requiring frequent calibration can introduce error. Additionally, dirt-contaminated skin can produce inaccurate results when blood samples are collected through "finger sticks." Isolated exposure to lead-containing substances can yield abnormally high, but transitory, laboratory results, whereas low readings can misdirect the clinician testing children who have just begun to ingest lead.

The test for FEP is much more easily performed and less subject to error than whole blood determinations, but FEP also is elevated in iron deficiency anemia (IDA), regardless of etiology, and in erythropoietic protoporphyria. Because the latter is rare and IDA common, though, abnormally high FEP levels usually indicate IDA. Lead toxicity must be considered, however, because the microcytic, hypochromic anemia of lead poisoning is similar in appearance to IDA, and the two conditions often coexist.

If FEP testing suggests high lead levels, the clinician should repeat the test and determine the blood lead level in addition to checking the patient's complete blood count (CBC) to determine if the FEP elevation is caused by IDA or lead poisoning.

If the physician initially tests for lead content, and subsequently suspects lead poisoning, he should repeat the procedure and test for FEP elevation. In addition to verifying the lead content test, the FEP evaluation helps determine treatment regimen (Fig 1). Blood samples for lead, FEP, and CBC tests can be drawn simultaneously. The CBC should be drawn to help evaluate IDA. Samples

1. Combined interpretation.[1]

Tests Results μg/ml	FEP≤59	FEP 60–109	FEP 110–189	FEP≥190
Pb≤29	I	Ia	Ia	EPP*
Pb 30–49	↓Ib	II	↑III	↑IV
Pb 50–79	†	↓II	III	↑IV
Pb≥80	†	†	†	IV

* Erythropoietic protoporphyria
† Combination not generally observed. Repeat testing generally indicates contamination of the first specimen.
↓ Downgrading of the estimated risk of lead intoxication suggested by blood lead on the basis of the FEP results.
↑ Upgrading of the estimated risk of lead intoxication suggested by blood lead on the basis of the FEP results.

2. Lead intoxication categories.

Test	Class I Normal	Class II Minimally Elevated	Class III Moderately Elevated	Class IV Extremely Elevated
Pb				
μg/100 ml	≤29	30–49	50–79	≥80
	≤59	60–109	110–189	≥190

IDA usually causes mild elevation of FEP. Lead alone causes extreme elevations, except for rare cases of erythropoietic protoporphyria. In instances in which lead and FEP tests do not allow similar interpretations, FEP level is more likely to reflect the actual status of the child (Fig 1).

for serum-iron, iron-binding capacity and/or percent iron saturation analyses often are drawn to help diagnose the coexistence of IDA.

Interpretation of the Tests

Fig 2 shows the degree of lead intoxication based upon the lead content test. Fig 1 correlates lead-content and FEP-level analyses.

Management

Management of lead-poisoned children is determined by the risks estimated in Figs 1 and 2. Elimination of the source of lead is mandatory in all cases. The local health department should examine the patient's home for the source of lead. If needed, help may be requested from the Texas Department of Health headquarters in Austin.

Teaching parents and community health department and social service personnel about lead poisoning, especially in asymptomatic cases, is necessary to eliminate sources of lead in the home. The Texas Department of Health may help relocate a family to lead-free quarters or obtain temporary care for children while parents eliminate sources of lead. Such measures, however, would be used only for children with high lead levels.

Therapy

Test result ranges and appropriate medical responses can be summarized as follows (Figs 1 and 2):

Class I: Monitor the child's blood lead levels at one-month intervals if he has been exposed to lead, or until sure there is no undue absorption. Then determine blood lead levels annually until he is 6 years old.

Ia: Child with IDA: Treat the patient with iron and follow Class I monitoring procedures.

Ib: Child with transient or declining blood lead elevations: Evaluate tests monthly to be sure there is no continued exposure and that the lead level is declining; then test at three-month intervals until the blood lead level is normal; then monitor lead levels annually until the child is 6 years old.

Class II:

1. Remove the source of lead from the child's environment.
2. Chelation therapy generally is not required.*
3. Monitor the child's blood lead level one month after first determinations to determine whether it is declining, then check the blood lead level every three months to be certain the child is no longer exposed. When the levels have been normal for six months, evaluate the patient annually until he is 6 years old.
4. If exposure continues, monitor the child every one to two months to watch for rising lead levels.

Class III:

1. Remove the source of lead from the child's environment.
2. If the child is symptomatic, follow Class IV procedures.
3. If the child is asymptomatic, additional tests may be conducted:
   a. X-ray abdomen and long bones for flecks of paint or lead lines; perform a CBC and ALA-d or urinary coproporphyrin analyses.
   b. Conduct a Ca EDTA mobilization test to determine the body burden of lead. (For the mobilization test, the clinician administers 50 mg Ca EDTA/kg of patient body weight and then monitors lead excretion for 24 hours. Results are expressed as micrograms of lead/milligram of Ca EDTA administered. A lead/Ca EDTA ratio greater than 1 indicates a large lead burden and the need for chelation therapy. At times it is necessary to measure the lead/Ca EDTA ratio for eight hours rather than 24. Excretion of a 1,000 μg Pb/liter urine, or greater, is positive. If the tests are positive, the child should be treated, preferably as an inpatient. Sometimes outpatient treatment is necessary.[24]
   c. Watch for rebounding of blood lead levels caused by equilibration of tissue pools. Repeat chelation if necessary. As EDTA is itself nephrotoxic, repetition of chelation with EDTA more than once may be dangerous. Penicillamine may be safer for slow elimination of a large body burden.[25]
   d. Check the child's lead levels monthly until the source of lead is removed and blood lead and/or FEP are stable or have declined for six months. Then evaluate the child every three months, until he is 6 years old, to detect repeated exposure to lead.
   e. Perform a careful neurological assessment to determine the appropriate therapy and school placement for the child, if necessary.

Class IV:

1. Remove the source of lead from the child's environment.

*For an excellent review of this therapy, see Chisolm.[1,23]

2. Hospitalize the child immediately for evaluation and chelation. (See Chisolm.[1,23])

3. Watch for rebounding blood lead levels. (See Class III, c, above.)

4. Penicillamine is receiving attention as an outpatient follow-up treatment in children with a large body burden of lead, but it has not yet received FDA approval for this purpose.[25] Penicillamine should *never* be the primary form of therapy in the symptomatic child and possibly should not be used if continued exposure to lead is likely.

5. Examine the child every one to two weeks until blood lead levels have stabilized or declined for six months. Thereafter, lead levels should be determined every one to three months until the lead levels have been normal for six months; then lead levels should be checked annually.

Conclusion

Children, especially toddlers from disturbed family situations, who live in pre-World War II houses, are vulnerable to lead poisoning. Lead and FEP blood tests indicate which children have lead toxicity and the degree of risk. Appropriate treatment can then be instituted according to established routines.

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Potential increase of chlamydiosis (psittacosis) in pet bird owners in Texas

J. E. Grimes, PhD B. Panigraphy, PhD

The incidence of chlamydiosis, an infectious disease carried by certain birds and transmissible to humans, seems to be increasing in Texas. Of 70 psittacine birds necropsied and tested at Texas A&M University between Jan 1 and Aug 14, 1978, 28.6% were confirmed chlamydiosis carriers. Tests on cloacal swabs and serum specimens from birds on two known infected premises (one dealership and one pet shop) indicated a high prevalence of infection. Physicians examining pet bird owners (or former owners) with unusual respiratory illness should consider chlamydial infection a possible cause.

Chlamydiosis, more commonly known as psittacosis and ornithosis, is a significant public health menace in Texas. *Chlamydia psittaci*,[17] the infectious organism, may infect various species of birds, but the Psittacidae family represents most hosts; hence the name which means "of a parrot," and the popular label, "parrot fever." Usually a lower respiratory infection in man, chlamydiosis, if untreated, can lead to respiratory insufficiency, generalized toxemia, and, subsequently, death.[13] Even if apparent recovery does occur, serious complications, such as valvular heart diseases, may result.[19]

Classical symptoms of *C psittaci* infection in humans include sudden onset with chills, fever, anorexia, sore throat, malaise, photophobia, and severe headache.[13] Temperature at the onset is usually between 37.8C (100F) and 38.9C (102F), gradually rising. Moist rales, in the absence of consolidation, and relatively slow pulse rate are characteristic, but in some cases, onset may be gradual and well established before symptoms become obvious.

Workers processing infected poultry, especially turkeys, risk contracting the infection. A number of chlamydiosis outbreaks among turkeys, some of which resulted in human infection, occurred in Texas between 1948 and 1976.[3,5,8-12] Chlortetracycline-hydrochloride (CTC) therapy and quarantine imposed by the Texas Animal Health Commission usually control such outbreaks, and CTC treatment (200 g/ton of feed) renders turkeys safe for handling by processing plant workers and purchase by consumers.[4,8,9,18]

Pet birds, especially of the psittacine type, are the apparent source of most *C psittaci* infections of man. The US Public Health Service requires that imported birds undergo 30 days of CTC therapy in a quarantine station licensed by the US Department of Agriculture before being released into the pet bird trade. A recent report indicates that this regimen has not been completely effective in the eradication of *C psittaci* in all birds.[16] In addition, the smuggling of birds into the US, particularly through states bordering Mexico, should not be overlooked as a source of *C psittaci* infection. The chlamydial infection in captive adult, psittacine birds usually is a low-grade, chronic form which may remain at subclinical levels. Stressful conditions, however, usually cause increased shedding of chlamydial organisms in droppings, allowing transmission to other birds and humans via inhalation of the organism in "dust" of dried feces. Human to human transmission is extremely rare and should not be considered a problem of any consequence.

The Texas Department of Health is empowered to quarantine infected pet birds, and many Texas cities and counties regulate the marketing of birds. Because there often is a prolonged interval between infection and notification of authorities, however, chlamydiosis may spread without warning. Human cases may occur sporadically, with only a few cases reported in any instance.

Status of Psittacine Chlamydiosis in Texas

Between Jan 1 and Aug 14 of 1978, the Texas A&M University Department of Veterinary Microbiology and Parasitology received 70 psittacine birds from several sources. Tests revealed chlamydial infection in 20 of the birds, considerably more than reported in the three previous years (Fig 1).

In 1975, the university received 39 birds, most of which were budgerigars, from 17 sources, but tests indicated no chlamydiosis in the samples. Of the 49 birds tested at A&M during 1976, none apparently carried chlamydial infection. The 73 birds received in 36 submissions during 1977 represented more species than in the previous two years, and only one love bird was found to have chlamydiosis.

Of the birds in the 1978 submissions, those found positive by isolation of *C psittaci* from their tissues were three cockatiels, a half-moon parrot, one pool of three budgerigars (parakeets), five yellow-headed parrots, a hyacinth macaw, two blue-fronted parrots, a green macaw, and six parrots of various species. The chronology and abbreviated history of submissions and testing of birds on known infected premises follow.

Tests on a January submission to Texas A&M University isolated chlamydiosis in a cockatiel whose Dallas-

area owner said the animal had suffered occasional diarrhea and generally poor health. Necropsy showed the extremely emaciated bird had severe chronic air sacculitis with yellowish caseous exudate. Additionally, there was necrosis and degeneration of the myocardium, extensive destruction of lung tissue, and severe hepatic necrosis and cirrhosis. Although no bacteria was isolated on blood agar from the liver or air sacs, an examination of direct impression smears of air sac tissue stained by the Gimenez method[7] indicated the presence of typical microcolonies of *C psittaci*. Subsequently, the organism was isolated by injection and examination of white mice.

In mid-February, a half-moon parrot was received from a pet store in the Central Texas area near Fort Hood. Necropsy revealed lesions of chlamydiosis, hepatomegaly with numerous necrotic foci, and splenomegaly. Chlamydiae were isolated from a pooled visceral organ tissue suspension injected into mice. Other birds in the pet shop subsequently underwent CTC treatment supervised by a veterinarian.

Several budgerigars submitted in late February and early March by a Texas Department of Health zoonosis control veterinarian carried no chlamydiae. These birds had been kept by two bird breeders in Central Texas where there had been some diseased birds. A parrot received in late March from West-Central Texas was also negative for chlamydiae. The veterinary practitioner submitting the specimen expressed concern that the bird may have been smuggled into the US.

In early March, Texas A&M received two parrots from a dealer in East-Central Texas. Direct impression smears of air sacs and injection of mice substantiated chlamydiosis in one bird, a green macaw; although direct impression smears from the other parrot, of undetermined species, showed no chlamydiae, injection and examination of mice confirmed chlamydiosis.

Later in March, the dealer sent for testing two Amazon green parrots, both of which carried chlamydial infection.

Another bird sent by the dealer for observation was found to be shedding chlamydiae in its feces. Subsequently, this bird died and tissues yielded chlamydiae in mice.

In an attempt to ascertain the prevalence of chlamydial infections in the dealer's birds, cloacal swabs were obtained from 16 of his parrots. Two of these yielded chlamydiae in mice. Serum specimens obtained from the same birds were tested by the direct complement fixation method. Five of these birds had significant chlamydial antibody titers. The birds found to be infected with chlamydiae were reported by the dealer to have been received from a quarantine station in California. The findings indicate that some type of "treatment failure" evidently occurred in the quarantine station with this group of about 30 birds. Meanwhile, possible exposure of humans and several hundred other birds, mostly psittacine, existed on the dealer's premises; however, a quarantine was put into effect, and CTC treatment was administered. Submission of dead birds during and immediately following the quarantine and treatment period resulted in finding one parrot with chlamydiosis. However, in this treatment regimen there apparently was some "treatment failure" since one parrot submitted July 31 had chlamydiosis. No infected birds have been detected in subsequent submissions.

In early March, three budgerigars were received from a bird breeder in the Texas Panhandle. Lesions noted were pneumonitis and air sacculitis. Pooled tissues from these birds yielded chlamydiae in mice. Domestically reared budgerigars generally are thought to be virtually free of chlamydiosis, but these findings and those of others[16] point out the fallacy of this thinking.

On April 8, blood from a blue-fronted Amazon parrot that died in a Houston-area pet shop was tested by direct smear which showed chlamydial infection. Chlamydiae also were isolated in mice. Blood specimens were drawn from 40 birds in the pet shop. Eight, representing six species of parrot, had complement-fixation (CF) titers of 32 or 64 which were indicative of a current infection. Cloacal swabs also were collected from the same birds and four have yielded chlamydiae in embryonated chickens eggs. Attempts to isolate chlamydiae from the remaining specimens were negative. Meanwhile, birds in the shop were treated with CTC under the supervision of the veterinarian. A few days after treatment was begun, blood samples were taken from 85 birds in the shop. Forty-four were serologically negative and 23 had low CF titers of eight or 16; higher CF titers of 32 were found in eight birds, 64 in six, 128 in two and ≥128 in two. The higher titers indicated a high prevalence of infection. A quarantine was established and CTC treatment was administered. Tests on cloacal swabs from 44 birds indicated that treatment was effective. However, a cockatiel purchased in August in a new shipment of birds was found to have chlamydiosis.

In mid-April, seven Mexican double-yellow-headed parrots were received from the Zoonosis Control Veterinarian in Public Health Region 5, encompassing the North-Central Texas area. Four of the birds were heavily infected, as revealed by examination of stained direct smears of the air sacs. Visceral organ pools collected from the birds revealed chlamydiae when injected into mice. These birds were from a shipment in which other birds had died and had been "examined" by an employee who acquired the infection. These birds reportedly had been obtained from a quarantine station in Louisiana.

In late July one cockatiel and one double-yellow-headed parrot from a bird breeder in Central Texas was found to have chlamydiosis. CTC treatment of these birds was instituted and no additional submissions have been received. Also, in late July, a hyacinth macaw, an extremely valuable bird, was received through a veterinarian from a private owner in Houston and it too was found to be infected with *C psittaci*.

Discussion

Data indicate a substantial increase in psittacine chlamydiosis in Texas. Therefore, physicians examining patients who have unusual respiratory symptoms, and who have owned psittacine birds, should consider chlamydial infection possible. Fortunately, human chlamydial infections respond to CTC treatment (or, erythromycin, as a second choice). Recovery usually is prolonged, but without complication. Patients should be treated for ten days; inadequate treatment, with respect to time and dosage, favors relapse.[13]

Human serum samples, obtained during the acute and convalescent stages of chlamydiosis, may be sent to the Texas Department of Health serology laboratory in Austin for diagnostic confirmation. If treatment begins soon after onset, however, the confirmatory four-fold titer increase may not occur until late convalescence or recovery—or it may not occur at all.

Sick birds should be referred to veterinarians for treatment which generally includes CTC-medicated feed for small birds such as finches and budgerigars,[14] and a medicated mash for parrots.[2] Food suitable for nectar feeders also can be prepared.[1]

The Department of Veterinary Microbiology and Parasitology at Texas A&M University may be consulted for aid in performing serologic tests for confirmation of suspected chlamydiosis. Whole clotted blood or serum, collected aseptically, may be submitted for serologic testing. Isolation of *C psittaci* may be attempted from cloacal swabs from birds suspected of being infected, but such a test may not be conclusive, unless it is positive, because shedding of chlamydiae usually is intermittent. The swabs must be placed in a small amount of liquid, such as nutrient broth, and securely stoppered prior to shipment on dry ice. Dead birds should be placed in sealed bags and shipped with dry ice also.

Conclusion

The reasons for the suddenly increased incidence of psittacine chlamydiosis are not understood completely. Apparently there are "treatment failures" at quarantine stations which may be due in part to large numbers of badly infected birds that do not consume enough CTC to rid them of chlamydiae. Such birds may not fully recover during the prescribed quarantine which ends regardless of CTC blood levels. In addition, smuggled birds, no doubt, contribute to the problem. Bird fanciers, bird breeders, and pet store owners need to be warned about the chlamydiosis problem. Certainly, public health officials should review the effectiveness of present quarantine regulations. Physicians should be alert to chlamydiosis when examining patients who exhibit unusual symptoms and who have owned pet birds.

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The authors, Department of Veterinary Microbiology and Parasitology, Texas A&M University, College Station, TX 77843.

J. P. Anderson

James Parris Anderson, MD, past president and secretary of the Kimble-Mason-Menard-McCulloch Counties Medical Society, died July 15, 1978.

Born in Brady, Tex, Dr Anderson, 69, attended the University of Notre Dame and The University of Texas. He received his medical degree from Tulane University School of Medicine, New Orleans, in 1934. After serving an internship at Charity Hospital of Louisiana in New Orleans, Dr Anderson began his family practice in Brady in 1936. During World War II, he served in the Third Army Medical Corps from 1941 to 1945 and then returned to Brady. In 1956 he served as president of the Private Clinics and Hospitals Association of Texas.

Surviving Dr Anderson are his wife, Sue Anderson, Brady; sons, Kenneth Anderson, West Palm Beach, Fla, and Jeffrey Anderson, San Francisco; daughter, Sheila Anderson, Washington, DC; stepson, Steve Anderson, San Marcos; stepdaughters, Pam Wilkinson and Kathy Anderson, both of Brady; two step-grandchildren; and two nephews.

J. A. Armstrong

John Alec Armstrong, MD, 39, Jacksonville, died July 24, 1978. Dr Armstrong was a member of Cherokee County Medical Society.

A native of Amarillo, Tex, he was a 1961 graduate of Lamar University, Beaumont, and a 1965 graduate of UT Southwestern Medical School, Dallas. His internship and residency were at the Veterans Administration Hospital, Dallas. He served two years in the US Air Force.

Dr Armstrong is survived by his wife, Beth Majors Armstrong; daughters, Ruth Armstrong, Ann Armstrong, and Lynn Armstrong; mother, Mrs George W Armstrong, Sr, all of Jacksonville; and brother, George Armstrong, Houston.

P. W. Barker

Paul Willging Barker, MD, an Austin family practitioner and member of Travis County Medical Society, died Aug 1, 1978. He was 70.

Dr Barker was born in Kalona, Ia, and attended The University of Texas at Austin. In 1943 he was graduated from UT Medical Branch. His internship was at the University of Iowa Hospital, Iowa City; his residency was at Brackenridge Hospital, Austin.

Surviving Dr Barker are his sister, Mary Louise Modave, Brussels, Belgium; niece, Anita Schoeffler, Houston; and nephew, Paul Schulz-Behrend, Austin.

R. M. Burgess

Richard McClary Burgess, MD, a long-time Fort Worth physician, died July 4, 1978. He was a past secretary of Denton County Medical Society and an honorary member of Texas Medical Association.

A native of Vesta, Ark, Dr Burgess, 77, was a graduate of Howard Payne College, Brownwood, Tex, and Baylor University College of Medicine. He served an internship at Central Texas Hospital, Brownwood.

Surviving are Dr Burgess' wife, Emma Kemper Burgess, Fort Worth; son, Richard M. Burgess, Jr, MD, San Antonio; and three grandchildren.

R. E. Henderson

Roy Earl Henderson, MD, 80, a past president and honorary member of Henderson County Medical Society, died July 21, 1978. Dr Henderson had practiced medicine in Athens, Tex, for more than 43 years.

A native of Longview, Tex, he was a 1923 graduate of Tulane University School of Medicine, New Orleans. His internship and residency were at Charity Hospital of Louisiana, New Orleans.

Dr Henderson is survived by his wife, Hattie Lee Henderson, Athens; foster son, Ronald D. Flowers, Stafford, Va; three sisters; and a number of nieces and nephews.

E. D. Lane

Early Douglas Lane, MD, an honorary member of Texas Medical Association, died July 19, 1978. Dr Lane, 87, was a long-time physician and former mayor of Terrell, Tex, and past president of the Kaufman County Medical Society.

Born in Colquitt, Ga, he attended the University of Georgia, Valparaiso (Ind) University, and was graduated from Baylor University College of Medicine in 1921. He interned at Baylor University Medical Center, Dallas, and Baptist Memorial Hospital, Memphis, Tenn.

Dr Lane is survived by his wife, Hester Buffington Lane, and son, Douglas Lane, both of Terrell; daughters, Billie Jo Rash, Lake Tawakoni, Tex, and Nancy Lane Griffith, Gunnison, Colo; eleven grandchildren; two great-grandchildren; and a number of nieces, nephews, and other relatives.

P. A. Reitz

Percy Allison Reitz, MD, a Pittsburg, Tex, family physician, died July 10, 1978. He was 74.

A native of Reserve, Kan, Dr Reitz was a 1933 graduate of the University of Nebraska College of Medicine. After serving an internship at Parkland Memorial Hospital, Dallas, he moved to Pittsburg. A member of Camp-Morris-Titus Counties Medical Society, he served as secretary in 1953 and president in 1976. He was a charter fellow of the American Academy of Family Physicians.

Survivors include his wife, Hazel Thomison Reitz, Pittsburg; sons, Dr Ronald Reitz, Reno, Nev, and Dr Robert Reitz, Newark, Del; daughter, Mrs Bob Jackson, Dallas; one brother; and five grandchildren.

T. J. Scull

Thomas Jackson Scull, MD, 65, died June 26, 1978. The San Antonio family physician was a member of Bexar County Medical Society.

Born in San Antonio, Dr Scull attended St Mary's University there, was graduated from The University of Texas at Austin in 1937, and received his medical degree from UT Medical Branch in 1944. After a tour of duty with the US Navy, he was a resident at Robert B. Green Memorial Hospital, San Antonio. In 1947 he began his practice in San Antonio, and in 1972 he moved to McAllen, Tex, where he was in charge of the Veterans Administration Outpatient Clinic until his retirement in 1976.

Dr Scull is survived by his wife, Perdie Southern Scull, San Antonio; daughters, Sharon Krowl and Gene LeBoutiller, both of Houston; and Jackie Lynn Barton, San Antonio; mother, Mrs Charles Elam Scull, Sr, San Antonio; one brother; one sister; and two granddaughters.

J. H. R. Werner

Jan Hans Reinert Werner, MD, an Amarillo urologist, died July 24, 1978. He was a past president of Potter-Randall Counties Medical Society.

Dr Werner was born in Vienna, Austria, and received his medical degree from the University of Basel (Switzerland) in 1939. He served in the US Army Medical Corps during 1943–1946. Following an internship at Mercy Hospital in Oshkosh, Wis, Dr Werner held residencies in surgery and urology at St Joseph Hospital, Joliet, Ill; St Francis Hospital, Peoria, Ill; and Parkland Memorial Hospital, Dallas. He taught for a brief period at Southwestern Medical Foundation, Dallas, before moving to Amarillo in 1947. Dr Werner was vice-president of the Amarillo Multiservice Center for the Aging, Inc, and was among those responsible for formation of the Amarillo Adult Day Care Center, which was renamed in his honor on July 28, 1978.

Surviving Dr Werner are his wife, Bernice Christianson Werner, Amarillo; son, Dr Jan R. Werner, Jr, Omaha, Neb; daughters, Jana Werner Kidd and Deanah Van Pelt, both of Amarillo; and a sister, Mrs Grete Morris, Lauderdale Lakes, Fla.

C. S. Wilson

Carl Sanford Wilson, MD, a long-time member of Harris County Medical Society, died July 14, 1978. He was 85.

A native of Corsicana, Tex, Dr Wilson attended Vanderbilt University, Nashville, and Tulane University, New Orleans, before receiving his medical degree from Baylor University College of Medicine in 1918. He served an internship at St Paul Hospital, Dallas, and a residency at All Saints Episcopal Hospital of Fort Worth. He practiced in Ranger, Tex, before moving to Houston in 1925.

Dr Wilson is survived by his wife, Hazel Lee Wilson, Dallas; son, Carl S. Wilson, Jr, Austin; daughter, Sandra Sewell, Dallas; and four granddaughters.

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PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.
ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria
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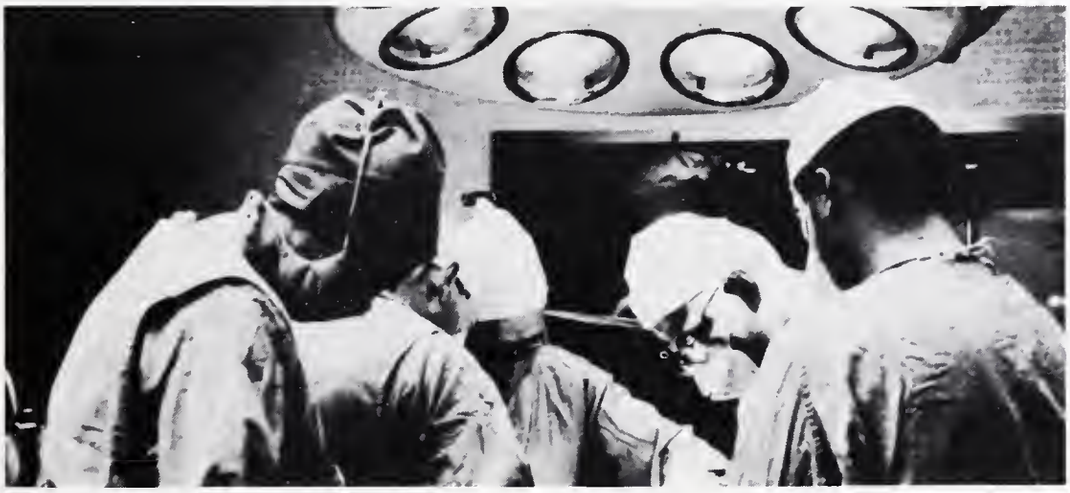

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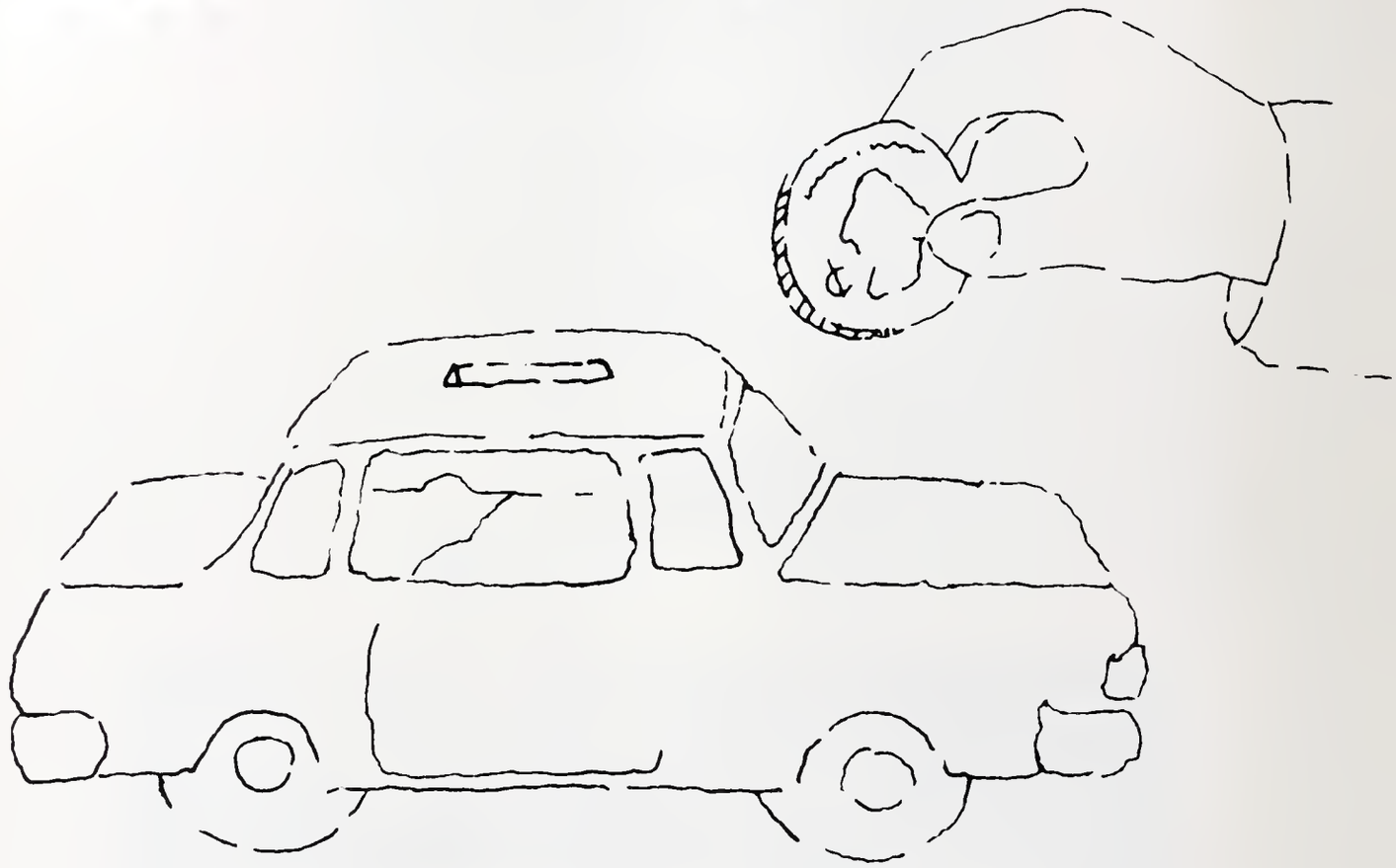

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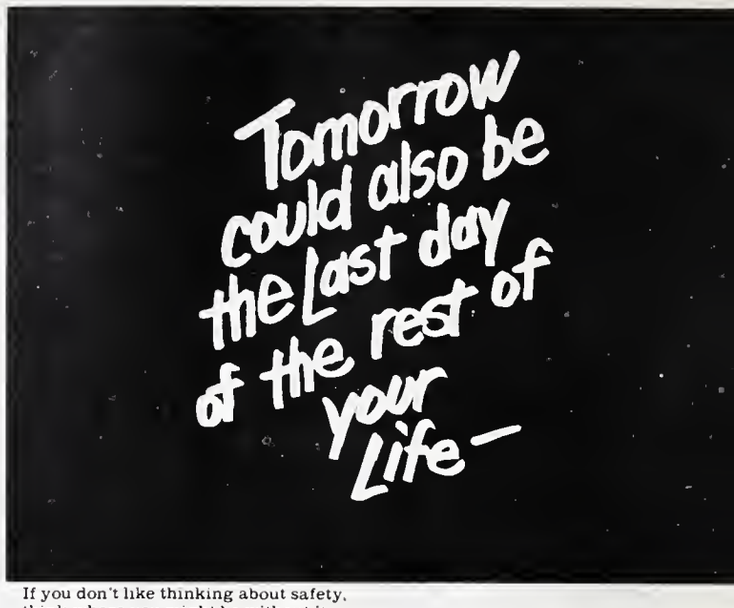

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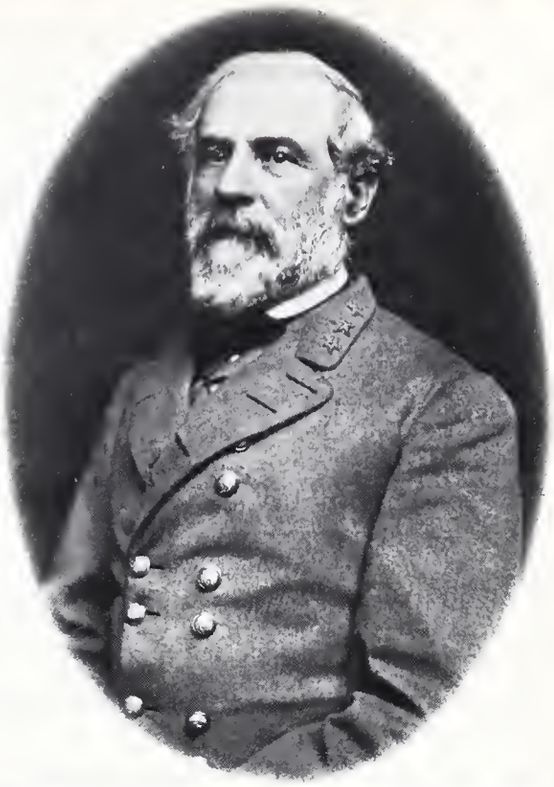

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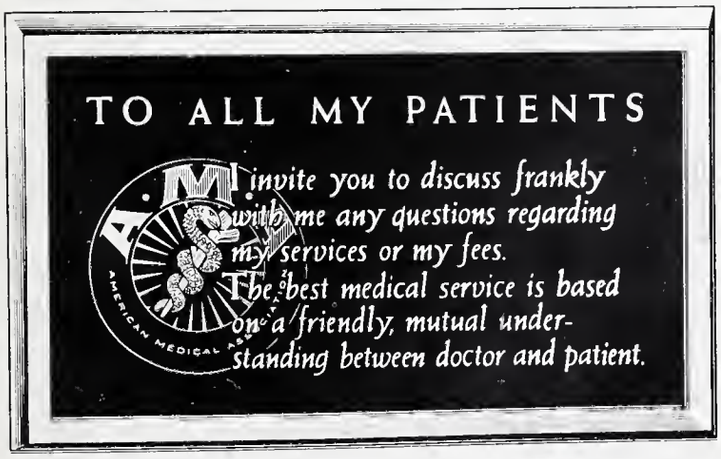

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(Required by 39 U.S.C. 3685)

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PSYCHIATRIC RESIDENCY—Terrell State Hospital affiliated with the University of Texas Southwestern Medical School, with Texas license first and second year—$19,000, third year—$20,000, fourth year—$21,000. Without Texas license—$17,600. Accredited for JCAH. Contact Luis M. Cowley, MD, Superintendent, Terrell State Hospital, P.O. Box 70, Terrell, Texas 75160. Approved internship preferred.

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PHYSICIAN WANTED—Temporary position available from present time until July 1, 1979. Need a family practitioner or internist willing to do family practice. Close to Houston, Austin and San Antonio. Charter member American Academy of Family Practice. Clinic adjacent to hospital. Contact Willis G. Youens, Jr., MD, 105 N. Grohmann, Weimar, Texas 78962; 713-725-8545.

FAMILY PRACTICE FOR SALE in large South Texas city. Fully equipped large beautiful office in affluent area of own. Good specialty backup in 3 large hospitals available. Call group available. Please reply to Ad-855, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

WANTED: GP, FP NEEDED to join 4 man group to do general practice and OB. Population 5,000; trade area 15,000 plus. Old established clinic group of 3 GP and 1 board surgeon. Lovett Meredith Clinic, Box 487, Olney, Texas 76374; 817-564-5543.

STAFF PHYSICIAN—Associate director for student health service. Faculty appointment. In the heart of the Texas Medical Center in exciting Houston. Reply to: A. E. Kadry, MD, Director, UT Health Care Center, Suite 208, 6410 Fannin Street, Houston, Texas 77030; 713-792-4773.

TEXAS OPPORTUNITY: Our community of 5K, 40 miles from Dallas soon opens the doors of a new hospital. We need three more GPs to join MD group or set up own practice. The practice/compensation package we offer is excellent. Send CV to or call D. R. Flynn, 611 Ryan Plaza Drive, #537, Arlington, Texas 76011; 817-461-1451.

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PHYSICIAN NEEDED to work in outpatient clinic administered by Austin-Travis County Health Department. Previous family practice, ambulatory or private practice experience desired. 40-hour work week; no night or weekend call. Beginning salary $33,721 with good fringe benefits. For more information contact: Albert Meisenboch, MD, 1313 Sabine, Austin, Texas 78701; 512-474-6581.

FAMILY PRACTITIONERS AND GENERAL PRACTITIONERS opportunities in Midland, Texas. Challenging work in a fast growing community. Colleges, theatre, cultural activities. Community of 80,000. Contact Richard R. Bell, Executive Director, Parkview Hospital, 3201 Sage Street, Midland, Texas 79701; phone 915-683-5491.

EMERGENCY PHYSICIAN: To work new emergency room in 80 bed acute care hospital. Choice salary or fee-for-service with guarantee. Malpractice paid. Daytime hours Monday through Friday. Call collect 817-699-3777.

BOARD CERTIFIED GENERAL SURGEON is needed due to recent retirement. Excellent opportunity to receive referrals from busy family practitioners. Office space available adjacent to a 72 bed JCAH accredited community hospital, just minutes away from Dallas metroplex on Interstate Highway. Great place to live. David W. Williams, MD, Chief of Staff or Scott T. Six, Administrator, W. C. Tenery Community Hospital, 1405 W. Jefferson, Waxahachie, Texas 76165; 214-927-5910.

FAMILY/GENERAL PRACTICE, INTERNAL MEDICINE—Seek the addition of a family, general practitioner, and internist to join 14 doctor multispecialty clinic located in North Dallas. Guaranteed salary first year with no buy-in agreement. The clinic is located within the new Medical City Dallas complex, which encompasses a 380 bed hospital and leasing space for approximately three hundred physicians. Excellent cultural and educational opportunities. If interested, please mail CV, c/o Jay K. Lockhart, Administrator, Southwest Clinic Association, 7777 Forest Lane, Dallas, Texas 75230.

PHYSICIAN WANTED—MD closing out family practice due to health. Practice and complete equipment, x-ray, EKG, etc. Located excellent industrial area on coast, 20 minutes from Corpus Christi. Call 512-776-2794 for complete information.

ORTHOPEDIC SURGEON—Sudden tragic death of orthopedic surgeon has left substantial orthopedic practice immediately available in Dallas, Texas. Direct all inquiries to Ira E. Tobolowsky, 2200 Fidelity Union Tower, Dallas, Texas 75201, area code 214/748-9312, attorney for estate.

Situations Wanted

ANESTHESIOLOGIST, 36 years old, FMG, FLEX, board eligible (passed part 1). 1½ years in private practice, seeks relocation. Reply with full particulars of location, type of practice, compensation and benefits. University trained. Please reply to Ad-794, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD CERTIFIED GENERAL SURGEON doing fellowship in colon and rectal surgery, and anesthesiologist together available for practice in February 1979. Both Illinois licensed; married with children. Both excellent training and experienced. Wish to move out together. Replies addressed to Rao, MD, 111 E. 20th Street, Lombard, Illinois 60148.

CARDIOLOGIST, board certified in internal medicine, board eligible in cardiology. Well trained in invasive (Sones and Judkins) and noninvasive cardiology. Seeks practice opportunities in association with other cardiologist(s) in Dallas or Houston area. Available July 1979. Contact Ad-843, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD ELIGIBLE ANESTHESIOLOGIST with over 10 years extensive experience of all types of anesthesia, looking for position for private practice, preferably fee for service, but will consider all offers and locations. Contact Ad-805, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

CARDIOLOGIST—Board certified internal medicine, 1977; board qualified cardiology. Trained in cardiac cath, echo, CCU, and stress testing. Interested in position in Houston or environs beginning January 1, 1979. Please reply to Ad-838, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

PEDIATRICIAN, 35, university trained, board eligible, Texas license. Seeks group or hospital based practice city over 200,000 and vicinity. Available December 1978. Please contact E. Garcia, MD, 43-60 Douglaston Parkway, Douglaston, New York 11363; call 212-229-7092.

BOARD ELIGIBLE GENERAL AND VASCULAR SURGEON from University of Mass. Medical School Residency Program is seeking group or hospital based practice. Please write to: Vijay A. Mehta, MD, 14 D Brandywine, Shrewsbury, MA 01545; phone 617-791-4621.

DERMATOLOGIST—37, dermatology board certified 1971. Texas temporary license. Looking for practice in Houston. Open to all possibilities. Please reply to Ad-831, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

ORTHOPAEDIC SURGEON. Formal residency training completed. FRCS (UK). Texas license with Certificate of Honour. Seeks to join group of orthopaedic surgeons in Houston or Dallas. Salary basis or guarantee for first year. Please reply to AD-849, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD ELIGIBLE INTERNIST (board examination taken 9/12/78, results pending) seeks relocation in Houston, Austin area. Group or associate practice preferred. Available after February 1979. Affiliation with teaching hospital wanted. Contact Luis Avila, M.D., 380 Park Avenue, Paterson, New Jersey 07504.

INTERNIST SEEKING LOCATION—General internal medicine. Seeking location in Dallas-Fort Worth area. 34 years old. Texas license. For further information contact Ad-856, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

BOARD ELIGIBLE NEUROLOGIST. Interested in working with group or neurosurgeon. Competent in EEG and EMG. Age 32. Available Jan. 1979. Contact Ad-857, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

SEEKING NEW LOCATION. 43 year old DABS, FACS, general surgeon, 10 years post-residency, desires to discuss relocation, preferably as solo surgeon, but will consider partnership, group, or full time surgical hospital position. Minimum case load of 250 major cases must be assured per year. In addition to capability and experience in non-cardiac chest, gyn, trauma and fiberoptic endoscopy, maintains interest in AvMed as Sr. AME and pilot. Considering leaving small town and rural county only because of insufficient surgical pathology to maintain interest. Although will consider industrial medicine to occupy idle office time, no GP-surgeon-positions accepted or discussed. Contact Ad-854, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

OPHTHALMOLOGIST with subspecialty training in neuro-ophthalmology, age 32, looking for private practice opportunity in association with ophthalmologist(s) or small multispecialty group in Dallas or Houston area. Please reply to Ad-858, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

INTERNIST—30 seeking solo or group hospital based practice in Texas. Willing to do primary care. Contact Dr. J. Naidu, 2480 Meadowlake Lane, Woodridge, Illinois 60515; telephone 312-969-8421.

GENERAL PRACTITIONER: Recent graduate of Baylor College of Medicine, licensed in Texas, desires institutional or private practice in association with experienced GP, OB, or surgeon from January through May 1979. Will begin internship July 1979. L. Dwain Doyle, MD, 9707 Braeburn Glen, Apt. 5, Houston, Texas 77074.

SEEKING PRACTICE: Young, Texas licensed, GP, MD, FMG, with excellent training and experience, desires suitable practice locations, in emergency room, clinics, institutions, industrial medicine, or partnership group practice situations. Preferably in medium sized or large sized communities. Will be available in 2-4 weeks. Please reply to Ad-859, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

YOUNG AND ENERGETIC PEDIATRICIAN SEEKING opportunity to enter challenging practice in Texas. Solo/associate/group. Available November 1978. Please contact Ad-860, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701; 715-267-7245.

PHYSICIAN ASSISTANT—1978 graduate of The University of Texas Medical Branch, Galveston, PA program seeking position in private general or family practice in Austin or Central Texas. For more information and resume, contact C. M. Smith, 5807 Cay Park Road, Aussin, Texas 78732. Telephone 512-345-1782.

YOUNG, BOARD ELIGIBLE, FAMILY PRACTITIONER looking for opportunity in Texas. Prefer group/partnership. Graduate of Texas A&M University of Texas Medical School, University of Alabama Family Practice Residency (7/79). Available Fall 1979. Contact Randy Martin, MD, Family Practice Center, 700 University Blvd., Tuscaloosa, Alabama 35401; 205-349-1770 office; 205-556-1418 home.

POSITION WANTED: Diagnostic radiologist, American born, educated and trained. Qualified in general diagnosis, angiography, CT scanning, ultrasound, and nuclear medicine. Passed written and physics, eligible for oral boards June 1979. Available July 1, 1979. Please reply to Baptist Medical Center, Oklahoma, Department of Radiology, P.O. Box 100, Oklahoma City, Oklahoma 73112.

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OFFICE SPACE IN DALLAS—Office suites still available one block from Baylor Hospital in new Medical Center Building, 3801 Gaston Avenue, Dallas, Texas. Pharmacy, laboratory in building. Generous allowance for office improvements. Planning and layout available without cost. Contact Joe Mistrot, 214-328-2761, or write P. O. Box 18237, Dallas, Texas 75218.

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NEW ULTRA-MODERN, cedar and glass office space for lease in Northwest San Antonio one block from Loop 410 and one exit from 1H10. Across the road from Park North Hospital, the building is divided into six separate office spaces which are occupied by 4 general dentists, 3 oral surgeons, an orthodontist, and a psychologist. Up to 2700 sq. ft. available at 51¢ sq. ft. with a very liberal allowance to finish out to your specifications. Ideal situation for the family practitioner or pediatrician. Contact Mossrock Venture, 2803 Mossrock, Suite 201, San Antonio, Texas 78230.

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FAMILY PRACTICE FOR SALE in large South Texas city. Fully equipped large beautiful office in affluent area of town. Good specialty backup in 3 large hospitals available. Call group available. Contact Ad-855, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

OPPORTUNITY, BLOOD GAS MACHINE model LM-165/2 almost new, in perfect working condition. Value $8,800, asking $6,500 or best offer. Call or write: Antonio Acevedo, MD, 1313 Tilden, #5, P.O. Box 1735, Laredo, Texas 78041; 512-724-2602.

PHYSICIANS' OFFICE SUITES available for lease at Medical Park Tower, the most prestigious, largest, professional medical office building in Austin. Conveniently located immediately adjacent to Seton Medical Center and near other medical facilities within the city. Contact Alan Guerin, Vantage Management Company, 512-454-3646, 1301 West 38th Street, Suite 206, Austin, Texas 78705.

HOUSTON—FONDREN, SOUTHWEST AREA: 4 bedroom, 2½ baths, 2 car attached garage, 2,750 square feet. Freshly, newly painted. 18'x38' L-shaped swimming pool with hot water spa attached. Professional landscaping and interior decorating. Home is 3 years old. All warranties still active. Price: $169,500. Contact 713-776-0745, 7614 Portal, Houston, Texas 77071.

OPPORTUNITY FOR INTERNIST OF FAMILY PRACTITIONER. Internist and family practitioner retiring. 12 years of intense practice in Rio Grande Valley of South Texas. Spanish language a help. Wish to sell office with equipment; 1620 sq. ft. office space; built in 1973. Five blocks from the hospital. $70,000. Raul Rio-Leon, MD, 118 West Jefferson, Brownsville, Texas 78520; 512-452-2949 or 512-546-2155.

IDEAL NE SAN ANTONIO SPACE AVAILABLE in building with two general practitioners in family medicine and one general dentist. The medical practices have been in the same location for 10 years. Lease to start Feb. 28, 1979. 10127 Sahara, San Antonio 78216. C. J. Merritt, DDS; 512-341-2536.

CENTRAL TEXAS: Industrial medicine and general practice for sale. Physician retiring. Modern accredited hospital, good schools, pleasant community. Will sell for 50% current annual gross (approximately $155,000/annually). Low overhead. Terms negotiable. Send resume and date available to Ad-846, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

DALLAS, TEXAS, ST. PAUL HOSPITAL AREA. Physician's office suite available with or without furnishings. Excellent condition, prime location, pharmacy and lab in building. Call 214-358-1717 after 5.

Miscellaneous

ABORTION ALTERNATIVES! Licensed maternity service offers residential and non-residential program with counseling and medical plan for the expectant mother who is planning adoption for her baby. Costs adjusted to ability to pay. MARYWOOD, 510 West 26th Street, Austin, Texas 78705. Phone 512-472-9251. (Formerly HOME OF THE HOLY INFANCY.)

FRESH SHELLED NUTS! Pecan halves-walnuts-sliced almonds; Quart each. Three-quart sampler, $9.95 postpaid. Canecreek Farm, Box 2727-TM, Cookeville, TN 38501. We have over 20 types of nuts. Great gifts! Order sampler or write for brochure. Satisfaction guaranteed.

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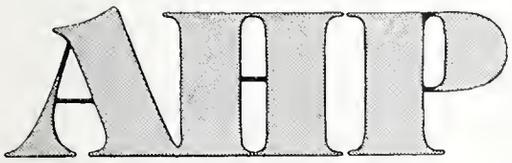

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Pestana's commentary outstanding

Dear Ms Baker:

I should like to extend applause and plaudits to Carlos Pestana, MD, for his article, "What Is Right With American Medicine" (*Texas Medicine*, August 1978). Obviously, as a physician, I am biased as to the opinions expressed by Dr Pestana. However, I think his article is most commendable because of the logic and fact upon which he bases his opinion. Unfortunately, only those of us in medicine will pay much attention to these facts and conclusions. Nonetheless, I feel this is an outstanding commentary and defense of the position of organized medicine in our country.

H. Stephen Goldberg, MD, Waco.

Errors noted in September article

Dear Ms Baker:

Two errors have been made in Fig 7, page 48, of our paper "Immunohemolytic Anemia in Children: A Review," published in the September 1978 issue of *Texas Medicine*.

The first error is in the legend. The correct legend should read: "7. Mechanism of action of autoantibodies (see text). (A) Uncoated red cell. (B) Red cell coated with IgM molecules. (C) Red cell coated with IgM molecules and complement. (D) Red cell coated with IgG. ClQ binds two molecules of IgG or two parts of the same molecule of IgM. (E) Macrophage, with nonspecific sites for IgM molecule and specific sites for complement and IgG molecules."

The second error is in the symbol for ClQ, which should be placed between two molecules of IgG and *not* between IgM molecules.

We apologize for the involuntary errors and the inconvenience.

Ugo Carpentieri, MD, Galveston.

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Much emphasis is placed on the licensing and relicensing of agents. Rightfully, the regulatory authority has striven to preserve the integrity of the industry by establishing stringent regulations which apply to agents' activities.

As an example, a section of the Insurance Code deals with an agent making improper or incomplete comparisons of insurance policies in an effort to convince an insured to terminate an existing policy in order to purchase one that the agent is selling. Insurance contracts often are difficult to understand, and an agent who chooses to violate or work outside the scope of a fair presentation can distort the facts or omit certain terms and conditions which result in his policy appearing to be more attractive than it actually may be.

To illustrate the point, let us assume that an agent is reviewing the waiver of premium provision during a comparison. An ethical approach would be to state that both policies have a waiver of premium provision and then fully define the terms and conditions to which the waivers apply. An unfair approach would be to cover the matter of waiver with a single cleverly worded question based on a certain slight advantage one plan may have over the other and let the entire matter of waiver drop at that point.

Using the minimum amount payable under one policy in direct comparison with the absolute maximum of another is a highly questionable tactic. There should be due regard for the qualification of any higher amount which may be paid as well as the prevailing circumstances which apply to all amounts the agent chooses to mention.

Failure to mention adverse termination dates or reductions which apply at certain ages cause a comparison to be incomplete. A statement that costs are about the same is not sufficient; if costs are mentioned the prospective buyer's entitled to—and should request—an exact projection.

The many ways in which the unwary may be duped during an incomplete or misleading comparison substantiate the wise philosophy of those who inserted in the Code severe penalties for the violators.

In addition to the state's efforts, both the insurance companies and the professional organizations of insurance agents have adopted commendable standards and codes of ethics for agents to follow. Their goals are to enhance the trust the public places in the industry and its agents. They are well aware that once a person has been misled by an agent, he is apt to lose faith in the integrity of the industry as a whole.

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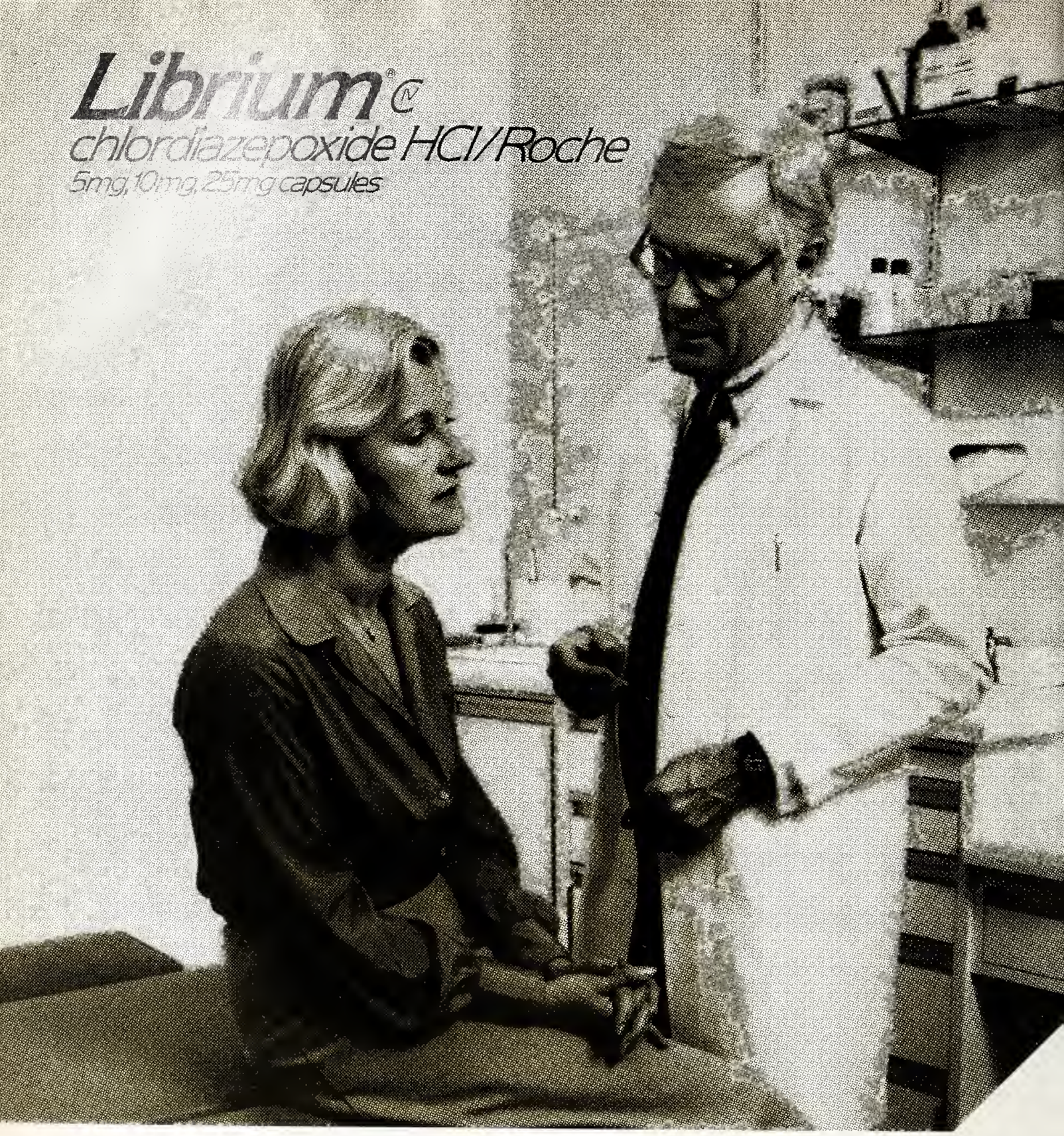

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On the cover

This month a new column takes its place among *Texas Medicine's* regular sections. "What's New" provides authoritative comments on recent advances in medical understanding, diagnosis, and treatment, and on receipt each column will be published in the first available issue to insure timeliness. Please see page 29 for the first What's New—an update on diabetes.

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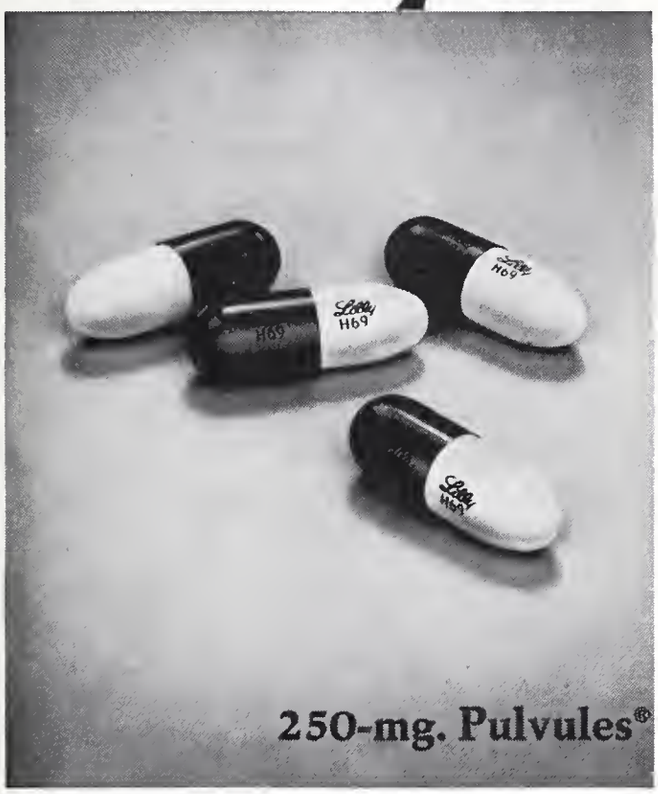

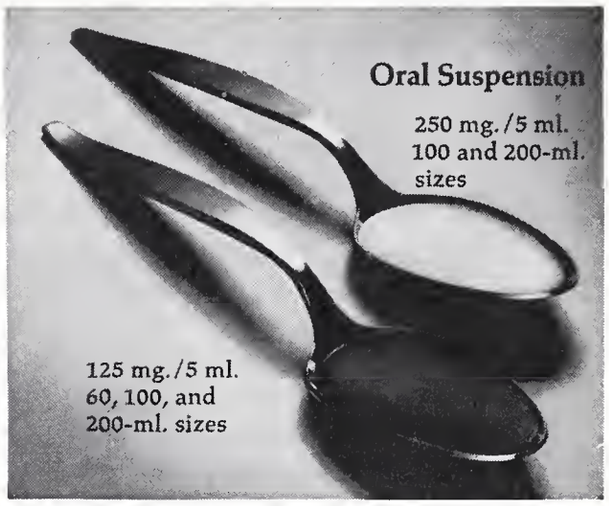

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January conference will focus on legislation

Five guest speakers and two panel sessions will be included in TMA's Conference on Medical Legislation Jan 20, 1979, in Austin.

The program will focus on legislation for 1979 both at the state and national levels.

TMA boards, councils and committees will meet in Austin before and during the conference, and the Executive Board will meet at 7:30 am Jan 21, at the Austin Hilton Inn.

A scientific program will be provided in conjunction with the conference. Postgraduate courses, offering hour-for-hour credit in Category 1 of the AMA Physician's Recognition Award Program are scheduled for Saturday and Sunday. Courses include practical office gynecology, update; adult and pediatric urinary tract infections; office management of anorectal disease; diagnosis and management of common allergic problems; and the basic cardiac life support course.

The conference also will include an orientation session for provisional members of TMA and a hospitality hour at the conclusion of Saturday's session. A luncheon will be served to all conference participants Saturday, compliments of the Texas Medical Association.

TIMA opens offices in Austin

The Texas Institute for Medical Assessment (TIMA) has opened offices in Texas at 211 E 7th in Austin.

TIMA signed a $404,208 planning contract with the Department of Health, Education, and Welfare (DHEW) in September.

Barry Flynn, formerly with the Health Standards and Quality Bureau of the Health Care Financing Administration in Dallas, has been hired as the administrative director.

During the planning phase, TIMA will continue development of a plan for orderly assumption of PSRO responsibilities in Texas.

During this time, TIMA will also negotiate with DHEW for a grant for the operational phase through which admissions to Texas hospitals can be studied for medical necessity, appropriateness of treatment, length of stay, and utilization of services and therapy.

TIMA must enlist as members 25% or more of the doctors who are licensed to practice medicine in the PSRO area (state of Texas) and develop a plan for continuous recruitment of participating physicians.

TIMA was organized in 1973 by the TMA and was later joined by the Texas Osteopathic Medical Association and the Texas Hospital Association.

A&M's new dean speaks about family physicians

The dean of Texas' newest medical school at Texas A&M University is reluctant to overestimate claims about Texas A&M's plans to turn out primary care physicians.

He observes, however, that Texas A&M has as its goal the training of family physicians for rural areas of the state while cautioning that the public should not expect the country doctor to rise, like the phoenix.

Dean Robert S. Stone, MD, former director of the National Institutes of Health and dean of medicine at the University of Oregon Health Sciences Center and University of New Mexico, says primary or family medicine has turned into a specialty and these doctors are no cheaper to produce than other specialist colleagues.

"Family practice is every bit as demanding as, and in some ways more demanding than, any other specialty. The requirements are the same. There is nothing second class about these family practitioners," he said.

Robert S. Stone, MD

Most students, it is hoped, will stay in primary care fields such as pediatrics, family practice, and internal medicine, and choose to remain in nonurban areas of Texas.

Realistically, Dr Stone says, around 60% of Texas A&M's graduates may continue to serve nonurban areas while their classmates may choose to live in the city and specialize in other fields.

About 99% of students interviewed for admission say "Yes!" they are interested in family practice, and he feels they are sincere.

"There is no way to assure that those selected will remain true to that interest. Some find that going out and practicing in the community reinforces their desire, while others decide that is not the life of the doctor as they had romanticized it."

The family practitioner today must command a breadth of knowledge that might discourage even some of his or her other specialist cohorts, Dr Stone said.

The modern physician is surrounded by a complex set of ethical issues including euthanasia, abortion, prescription drug abuse, accusations of malpractice, and high medical costs. That's a lot for a student to handle without some early exposure to the profession's internal code of conduct, Dr Stone said.

To this end, and to enrich the liberal arts education of its students, Texas A&M's College of Medicine supports a strong program of ethics and humanities in its curriculum.

One of the concerns of the college, says the dean, was that the undergraduate students it accepted might miss out on some of the broadening experiences that come from the humanities.

Physician distribution problems to continue, DHEW says

The supply of physicians may be more than adequate to meet the nation's needs by 1990, but problems of geographic and specialty distribution will persist.

That was the analysis of DHEW in its "Report to the President and Congress on the Status of Health Professions Personnel in the United States," issued in October.

The numbers of practitioners in the major health professions—medicine (including osteopathy), dentistry, optometry, pharmacy, podiatry, and veterinary medicine—are projected by DHEW to increase from 40 to 70% between 1975 and 1990, according to a report summary in the *Legislative Roundup*. In every discipline the supply is expected to increase faster than the population, stated the report.

The physician supply is expected to rise from 379,000 in 1975 to almost 600,000 in 1990, slightly more than the estimated requirement. The ratio of physicians to population is projected to rise from 177 per 100,000 people in 1975 to 241 per 100,000 in 1990.

The extensive report, which devotes a chapter to each of the major health professions and includes numerous tables is the first of a series required by the Health Professions Educational Assistance Act of 1976. It was prepared by the Bureau of Health Manpower of the Health Resources Administration, one of the six agencies of the Public Health Service.

New rabies vaccine available for research

A new rabies vaccine that gives greater antibody response, few adverse reactions, and requires fewer injections than previous vaccines is now available on a limited experimental basis, the Center for Disease Control (CDC) has announced.

The new vaccine, under development since the 1960s, is an inactivated strain of rabies grown in human cell tissue instead of the currently used duck embryo virus culture (DEV).

Antibody response is approximately ten times higher with the human diploid cell strain rabies vaccine than with DEV, the CDC reports.

Conversion rates also are higher, the CDC said, noting that one study showed an antibody titer to rabies in 98.4% to 100% of about 700 persons who were given three doses of the vaccine. By comparison, only 80% to 90% of persons who received 16 to 23 doses of DEV developed a rabies antibody titer.

Eligible to receive the experimental vaccine are people with a serious allergy to duck embryo vaccine, or who do not show an adequate antibody titer to DEV or who unquestionably have been bitten by a rabid animal. For preventive purposes, the vaccine will be available only to persons at high risk of being exposed to rabies, primarily laboratory personnel.

Requests for the vaccine should be made to CDC at 404-633-3311, extension 3727.

CDC investigates legionnaires' disease

Investigations by the Center for Disease Control (CDC) following the 79th Annual National Veterans of Foreign Wars Convention in Dallas have confirmed five cases of legionnaires' disease.

Cases are from New Jersey, Washington, New York, and Missouri. None has been fatal.

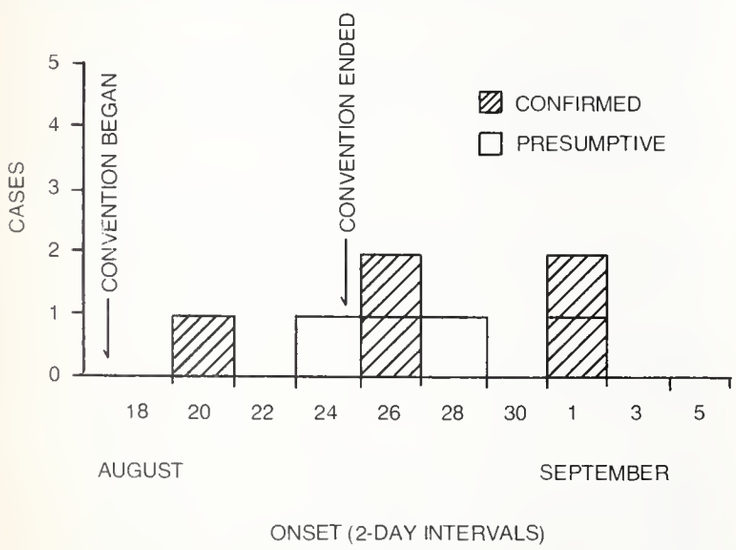
On Sept 14, 1978 legionnaires' disease was diagnosed in a 58-year-old New Jersey man whose symptoms began Aug 21. He had arrived in Dallas Aug 12 for the meeting Aug 18–25.

The VFW national organization reports there were approximately 36,000 attending.

Intensive nationwide case finding was initiated Sept 18. Among 2,953 persons who attended any convention-associated activity and were contacted systematically, the overall incidence of pneumonia with onset within two weeks of the end of the convention was 0.3%.

In Texas, where comprehensive case finding was initiated, 480 persons were contacted, and no documented cases of pneumonia were discovered. Serum specimens from all persons ill with pneumonia were solicited. A questionnaire survey of cases and controls to identify a possible common source of exposure is planned.

VFW Convention-associated legionnaires' disease cases, by date of onset, Aug 18-Sept 5, 1978.



Source: Center for Disease Control

Preliminary analysis, by week, of pneumonia patients admitted to 13 major Dallas area hospitals from July 1 through Sept 19, 1978, and the same period in 1977 showed no evidence of an outbreak of pneumonia there this year. A review of records in Dallas-area emergency facilities of persons seen with pneumonia, upper respiratory infection, or fever is pending.

The CDC is trying to determine whether this occurrence of legionnaires' disease is greater than that which would be otherwise expected. The clustering in time of pneumonia cases (with or without confirmation as legionnaires' disease) suggests that an outbreak occurred, according to CDC.

Legionnaires' disease is thought to be common. Officials at the CDC have estimated that about 15,000 to 45,000 cases occur in the United States each year. State and federal health agencies have, during the past year, been collecting information about sporadic cases. The CDC also is participating in the investigation of legionnaires' disease outbreaks this year in New York City and Memphis.

Texas physicians are asked to report suspected or confirmed cases to local health authorities or to the Texas Department of Health.

Physicians' charges increase less than overall totals

The increase in the cost of physicians' services for the 12 months from August 1977 through August 1978 was lower than the increase in overall medical care prices.

The rate of increase in physicians' services was the same as the increase in the all items index (7.6%), but was lower than the increase in the medical care index (7.7%) and the all services index (8.4%).

Figures are taken from the government's Consumer Price Index.

For the month of August, physicians' services rose .08%, the same as the all services index, somewhat more than the all items index (.06%), but less than the medical care services index (1.0%).

The August rate of increase was 1.0% for dental services and 1.5% for hospital room charges.

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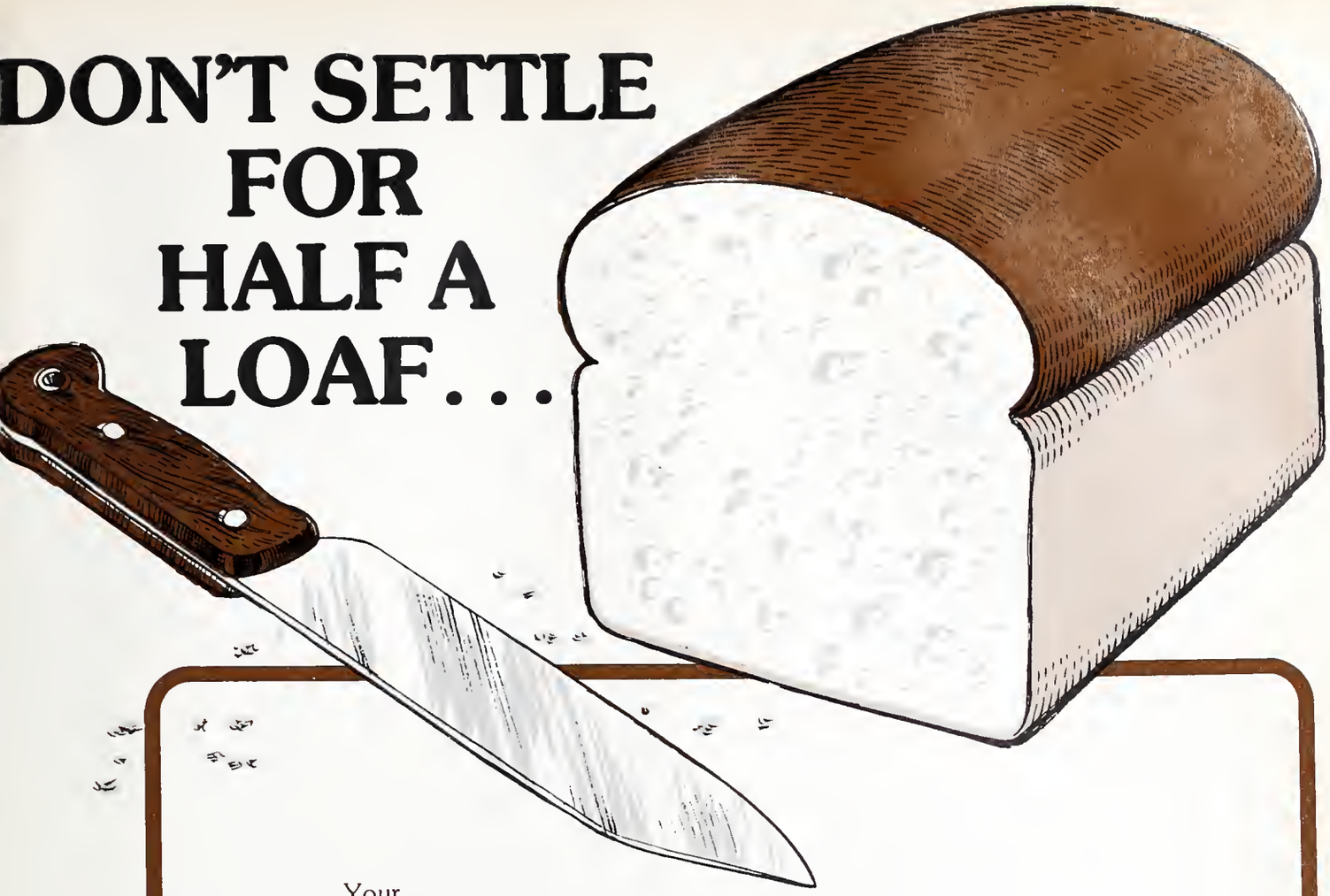

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UCLA professor assesses Canada's health program

Contrary to its stated goals, Canada's national health insurance program has not only failed to increase access to medical care for the poor, but has raised the cost of medical care for Canadians at all income levels, according to Cotton M. Lindsay.

Lindsay, associate professor of economics at the University of California at Los Angeles, says organizationally the Canadian system is quite similar to proposals for national health insurance introduced in the United States. He is the author of a newly published study, "Canadian National Health Insurance: Lessons for the United States."

Although the Canadian national health insurance system functions as a network of provincial plans, Lindsay says, coverages are virtually identical; therefore, the Canadian national health insurance program can be regarded as a national system.

Instead of taking from those who can afford to pay and giving to those who cannot, Lindsay says that Canada's national health insurance system has increased government spending without actually lowering costs to any income group. "There are no obvious reasons to believe end results in the United States would differ greatly from the Canadian example," he says.

In 1976, Lindsay said, combined spending on Canada's national health insurance program constituted more than 10% of all Canadian government spending. Government spending per family in 1976 amounted to an average of $1,122 for health care. Lindsay said that other government-financed programs in Canada must be considered to be bearing part of the Canadian national health insurance program cost burden.

The fundamental problem of access to medical services cannot be eliminated by reducing the price of health services to zero for the insured population, Lindsay says. In the short run, there are a fixed number of doctors and hospitals, he says, "and economic analysis suggests that the results of such rationing are less than reassuring."

Consumers, unable to bid for scarce services with money, must wait in line, and those willing to stand in line the longest obtain care.

It has been argued, Lindsay says, that the poor will be willing to outbid the rich for existing services. However, some services such as psychiatry may be more in demand by the rich than by the poor; this higher perceived value for the rich may more than offset the higher time cost. Despite the fact that the poor make less so their waiting time may appear to cost less, people with higher paying jobs tend to have more flexible work schedules, Lindsay says, and the ironic result of offering free services may well be the pricing out of the poor.

Unfortunately, under a government-financed program, everyone pays twice for medical care—once through taxes and again by wasting valuable time waiting, Lindsay said.

There is, Lindsay notes, great concern in the United States over the reported concentration of physicians toward both coasts and major urban areas and away from rural and depressed areas. A Canadian-style national health insurance system in the United States would only worsen this situation, Lindsay says, as it has done in Canada. Since income levels for physicians are relatively fixed under the Canadian national health insurance program, Canadian physicians have begun a discernible shift toward more geographically and socially attractive areas. In general, Lindsay says, the Canadian national health insurance system has given doctors greater incentive to locate in areas with more socially attractive patients and living environments. This development has served to increase the disparity of access to care for all income groups.

Lindsay projects that in the long run, fewer physicians will locate in rural and remote and generally poor areas already suffering a relative physician shortage, and that the very groups who had less access to care before the introduction of Canada's national health insurance program will have even less care in the future.

1979 Annual Session set for May 3–6 in Dallas

Plans are under way for TMA's 1979 Annual Session in Dallas May 3–6. Topics of interest to physicians in general practice and in all specialties are included.

Programs of 22 scientific sections, eight committees, and 34 related medical organizations are scheduled, and the majority of the scientific programs will meet requirements for Category 1 credit for the AMA Physician's Recognition Award.

TMA committees will present special conferences or symposia dealing with gastroenterology, the management of patients on chemotherapy, pacemakers and new drugs available for management of arrhythmias, emergency medical services, and various aspects of teenage pregnancy.

Other special features include dialogue, an unstructured program of questions and answers maximizing audience participation, to be presented Thursday, Friday, and Saturday mornings.

Plans also include 12 postgraduate courses to be jointly cosponsored by the AMA and the TMA.

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Medicare deductible to increase in January

The deductible for Medicare will increase from $144 to $160 Jan 1, 1979.

The 11% increase means that Medicare's 27 million beneficiaries will face higher out-of-pocket costs for health care.

Hale Champion, DHEW undersecretary, who made the announcement, stated that hospital costs are "the single biggest inflationary problem in this country."

As health care costs have increased during the past ten years, the Medicare deductible has more than tripled, shifting more and more of the costs of care to the program's recipients.

TMA delegates met in Austin in November

Jose Rodarte, MD, Temple, Joseph T. Ainsworth, MD, Houston, and Fratis L. Duff, MD, Austin, were all honored by the TMA House of Delegates meeting in Austin Nov 10, 11, and 12.

Dr Rodarte was presented with TMA's Distinguished Service Award for his years of service to Texas medicine. Dr Ainsworth was honored for his work on TMA's Council on Medical Legislation, and Dr Duff was honored for his service as director of the Texas Department of Health.

Reports of boards, councils, and committees, resolutions from Texas county medical societies, a TMA policy on negotiations, and legislative policies for the 66th session of the Texas Legislature were considered at the meeting.

A summary of actions of the House will appear in the January issue of *Texas Medicine*.

Coming next month

Articles scheduled for publication in January are on recent advances in the benzodiazepines, nuclear medicine applications to the study of coronary artery disease, infant diarrhea and folk medicine in South Texas, attitudes about breast feeding in a group of Mexican-American primigravidas, trends in treatment of thyrotoxicosis, cost containment in high-risk pregnancy, and an analysis of admissions to UT medical schools.

Investment performance for TMA Members' Retirement Plan and Trust

(As a service to participants in the TMA Members' Retirement Plan and to physicians interested in enrolling in the program, comparative performances for investments are listed. Figures shown are the latest available at press deadline and are for comparison purposes only. Most daily newspapers list up-to-the minute values on mutual funds.)

Investment Media[a]	1978 through 9/30	3 Years Ended 12/31/77	5 Years Ended 12/31/77	Current Dividend Yield
Loomis-Sayles Capital Dev. Fund	+11.6	+38.0%	−23.1%	1.5%
Loomis-Sayles Mutual Fund	−2.9	+25.3%	−18.2%	4.2
Mercantile Bank HR-10 Equity Fund	−2.2	+56.0%	−16.6%	b
Mercantile Bank HR-10 Fixed Income Fund	+0.1	+34.6%	+26.9%	b
T. Rowe Price Growth Stock Fund	+3.0	+33.9%	−33.8%	2.6
T. Rowe Price New Income Fund	−4.9	+ 6.6%	N/A	8.1
Stein, Roe & Farnham Balanced Fund	−1.9	+25.8%	−23.8%	3.7
Standard & Poor 500 Stock Average	−2.1	+38.8%	−19.4%	
Dow Jones Industrial Average	−4.7	+34.8%	−18.5%	

a. Mutual Fund performances include reinvested capital gain distributions.
b. Mercantile HR-10 Equity and Fixed Income Funds make no distributions. All earnings are retained in the respective funds.

MEDICAL NEWSMAKERS

SAM A. NIXON, MD, Houston, has been reelected speaker of the Congress of Delegates of the American Academy of Family Physicians.

VINCENT P. COLLINS, MD, Houston, has been named one of eight persons from around the nation to serve on the Medical Advisory Committee of the Nuclear Energy Commission.

JOHN J. HINCHEY, MD, San Antonio, a member of the TMA Council on Medical Education and Hospitals, has been recognized as a "Distinguished Alumnus" of Texas Tech University. In receiving the award, Dr Hinchey was recognized for his hard work and longtime efforts in development of the Texas Tech University School of Medicine.

SHARON ISONAKA-KURZNER, Houston, has been appointed by the AMA Board of Trustees to serve as a medical student member on the Liaison Committee on Medical Education. W. FRED LUCAS, MD, Austin, has been appointed to serve on the AMA Technical Advisory Committee on Surgical Criteria.

THOMAS F. NEWCOMB, MD, is the new chief of staff at the Audie L. Murphy Veterans Hospital and professor of medicine at the University of Texas Health Science Center at San Antonio. Dr Newcomb has been serving as assistant chief medical director for research and development of the Veterans Administration Central Office in Washington, DC.

A. W. PIERCE, SR, MD, Wichita Falls, is the new president of the Texas Pediatric Society for 1978–1979. Other officers are JOHN M. PICKETT, MD, Amarillo, president-elect; LAURANCE N. NICKEY, MD, El Paso, vice-president; MILTON W. TALBOT, MD, Austin, secretary; GEORGE FELKNOR, MD, Baytown, treasurer; and ANDREW L. MEGARITY, MD, Fort Worth, chairman of District 4.

BASIL A. PRUITT, JR, MD, Fort Sam Houston, has been reelected recorder of the American Association for the Surgery of Trauma. Dr Pruitt is commander and director of the USA Institute of Surgical Research at Brooke Army Medical Center.

ROGER A. BULGER, MD, president of the UT Health Science Center at Houston, and CHARLES A. LEMAISTRE, MD, president of the UT System Cancer Center, were honored at a Houston reception in September given by DR AND MRS TRUMAN G. BLOCKER, JR, DR AND MRS R. LEE CLARK, and the Development Boards of the UT Health Science Center, Houston, and the UT System Cancer Center.

MARCUS M. KEY, MD, professor of occupational medicine at The University of Texas School of Public Health, has been installed as president of the American Academy of Occupational Medicine.

TMA President MYLIE E. DURHAM, MD, Houston, has received the AMPAC Leadership Recognition Award. The award was presented during the AMA Annual Meeting in June to representatives of states in which 100% of the AMA delegates, alternate delegates, president, president-elect, and state PAC chairmen have become 1978 sustaining members of AMPAC.

MARTIN LEGETT, MD, Austin, finished third in the 50–54 age class at the Amateur Athletic Union US Masters National Decathlon Championships held in August at Merced, Calif.

RAYMOND COHEN, MD, Houston, is the new chairman of the Texas Chapter, American Academy of Pediatrics.

Sam A. Nixon, MD

John J. Hinchey, MD

Roger A. Bulger, MD

Charles A. LeMaistre, MD

CAPITAL COMMENTS

Editor's Note: "Capital Comments" highlights current items of interest relating to health matters in the US Congress, federal agencies, state legislatures, and Texas administrative agencies.

AUSTIN FOREIGN MEDICAL GRADUATES Members of the Texas State Board of Medical Examiners are taking a closer look at foreign medical graduates before licensing them to practice in Texas. "So many schools are popping up. Unless we look at them we don't know what they are doing," said Clifford Burross, MD, Wichita Falls. The proliferation of private medical schools in Mexico particularly concerned board members. Dr Burross mentioned Monterrey and schools that are opening in Matamoros and Reynosa. "The problem is so great that I wonder if we shouldn't meet with the medical schools and some people in the legislature who are really interested in education and not just getting a license for one of their constituents. We are concerned about qualifications, not individuals," Dr Burross said. Apparently some of these schools don't require anything but tuition as a qualification to get into medical school, said James R. Winn, MD, Uvalde. Max Butler, MD, Houston, board president, said the board probably would decide on a policy. "We need a general policy so far as handling this thing. We have had candidates with a bunch of credit hours but who have been there in school only a year. We might have to start individually scrutinizing all their documents," Dr Butler said. The board normally allows foreign medical graduates to take the Texas examination if they pass a competency test given by the Educational Commission for Foreign Medical Graduates (ECFMG). Bryan Spires, MD, Austin, board secretary, said the ECFMG was set up to get around having to qualify medical schools. Dr Spires said the board probably should meet with the Texas medical school deans and decide the basic standards. If a school doesn't meet the basic standards their candidates won't be admitted for licensure, Dr Spires said. Dr Burross said that many foreign medical schools are being set up for dollars for the doctors that are setting them up.

AUSTIN RURAL HEALTH CARE The Texas Senate Human Resources Subcommittee on Rural Health is holding a series of hearings to determine the status of rural health care in Texas and the impact of federal rural health clinics legislation. Hearings have been held in Kingsville, Corsicana, and El Paso. Another hearing will be in Austin Dec 1 and 2. TMA representatives wiil testify.

AUSTIN HEALTH COMMISSION Melvin Rowland has been reappointed chairman of the Texas Health Facilities Commission by Gov Dolph Briscoe.

AUSTIN CONTROLLED SUBSTANCES On Sept 14, 1978, the Commissioner of Health filed a copy of the current schedule of the Texas Controlled Substances Act, Article 4476-15, reflecting all changes made since the last annual filing, with the Administrative Division of the Secretary of State's office. Copies of this schedule are filed and available for public inspection in the Food and Drug Division, Texas Department of Health, 1100 West 49th Street, Austin, TX 78756.

WASHINGTON HOSPITAL BILLS In a move that could lower hospital bills, the Federal Trade Commission (FTC) announced that anesthesiologists have agreed to drop restrictions on the prices they charge. The agency said the result could be more competition in the field and lower prices for patients. The FTC said the American Society of Anesthesiologists (ASA), which represents 15,000 doctors, will end a fee for service arrangement which provided for a direct payment to anesthesiologists for their services by the patient or insurance companies. Under the method, such doctors could not be salaried by the hospital. The arrangement, the FTC said, "had the effect of limiting the ability of hospitals to freely negotiate and execute contracts with ASA members and others; influencing the prices which anesthesiologists charged them; restraining, limiting and foreclosing competition among anesthesiologists; and depriving consumers of benefits of competition."

WASHINGTON RURAL HEALTH INITIATIVE DHEW has entered into agreements with the Departments of Agriculture and Labor as a part of the coordinated administration of Rural Health Initiative. Under the first agreement, the US Department of Agriculture would set aside Farmers' Home Administration loan money to finance construction and renovation of approximately 300 rural health clinics in the next four years. DHEW grants would help staff and operate the facilities. Under the second agreement, labor would recruit and pay for the training of 500 migrant and seasonal farm workers as medical paraprofessionals, and DHEW could place them in community and migrant health centers. The program also provides for consultation during the next few months among administrative officials, community leaders, representatives of medical schools, and private health groups to develop policies for attracting and training health professionals in underserved areas. The plan was unveiled at an

elaborate ceremony featuring Vice President Walter Mondale and high ranking officials of the three departments.

AUSTIN ATTORNEY GENERAL'S OPINION Sen Chet Brooks, Pasadena, chairman of the Senate Human Resources Committee, has requested an opinion from the Texas Attorney General relating to the Rural Health Clinics Act. The committee has asked the attorney general if an advanced nurse practitioner, defined by the State Board of Nurse Examiners and meeting training and requirements of advanced education and national certification, may legally perform the following acts outside the presence of the supervising physician: take a patient's medical history, perform a physical examination, do an assessment of health status, identify deviations in health status, and institute a physician's orders for the simple laboratory tests which rural health clinics operating under PL 95-210 must provide, including chemical examination of urine; microscopic examinations of urine sediments; determine hemoglobin and hematocrit values; determine blood sugar values; gram stain, examination of stool specimens for blood or pinworms; and primary culture for transmittal to a certified laboratory. The committee also asked if a nurse practitioner who initiates written protocols developed by a physician is considered to be acting under adequate physician supervision if the physician is not physically present at all times, provided that the physician is available for consultation and referrals, and that the physician monitors, evaluates and directs all work, and is available at all times by telecommunication. The final question is what, if any, provisions of Texas law would specifically prohibit a nurse practitioner from providing medications to patients under standing and/or written orders?

WASHINGTON FEDERAL SPENDING Almost half of the 26 Texans in Congress qualified as watchdogs of the treasury by opposing unnecessary inflated federal spending as defined by the National Association of Businessmen, Inc (NAB). To qualify, members of Congress favored the NAB position on at least 66.7% of the 12 selected votes ranging from cutting funds or subsidizing housing and education aid to disadvantaged students to the creation of a National Institute of Health Care Research. Sen Lloyd Bentsen scored exactly 66.7% to join 31 other senators as watchdog award winners. Sen John Tower, who supported the NAB on six of ten issues and missed two votes, scored 60%. Three Texans in the House scored 100%. They are Reps Jim Collins, Dallas; Bill Archer, Houston; and Dale Milford, Grand Prairie. Failing to agree with the NAB position on any of the 12 votes were Democrats Reps Jim Wright, Fort Worth; Barbara Jordan, Houston; and Bob Eckhardt, Houston. Other NAB scores by Texas Democrats are Jack Brooks, Beaumont, 58.3%; Omar Burleson, Anson, 83.3%; Kika de la Garza, Mission, 60%; Bob Gammage, Houston, 88.9%; Henry B. Gonzalez, San Antonio, 9.1%; Sam B. Hall, Marshall, 90.0%; and Jack Hightower, Vernon, 66.7%. In addition, Bob Krueger, New Braunfels, 85.7%; George Mahon, Lubbock, 50%; Jim Maddox, Dallas, 36.4%; Bob Poage, Waco, 63.6%; Ray Roberts, McKinney, 75%; Olin Teague, College Station, 66.7%; Richard White, El Paso, 70%; Charles Wilson, Lufkin, 36.4%; and John Young, Corpus Christi, 12.5%.

WASHINGTON PLANNING GUIDELINES DHEW Secretary Joseph Califano, ignoring Congress' concern a year ago on DHEW's controversial national health planning guidelines developed without adequate consultation, has directed the Health Resources Administration staff to develop within the next few weeks national goal statements in six new areas.

WASHINGTON FEDERAL REGULATIONS The fundamental problem behind proliferating federal regulation is the unrealistic legislative objective of Congress, the Director for the Center of the Study of American Business told a Senate Judiciary Subcommittee. The director, Murray L. Weidenbaum, said that eventually the Congress must face up to the fact that it cannot possibly regulate everything. He said the cost involved in regulatory actions tends to be discounted or even ignored, and as a result the impact of government regulations now is felt in every level of the economy. "The cost of operating federal regulatory agencies is rising more rapidly than the budget as a whole, the population, or the gross national product," he said. Neither he nor others testifying on bills to revise the federal regulatory framework called for doing away with the regulations, but all called for more control by Congress over the miles of red tape that encompass many industries, especially health. A list compiled by the Center for the Study of American Business of the cost of federal regulations in different areas shows the costs

consumer safety and health, $6.6 billion; job safety and working conditions, $4.4 billion; energy and environment, $8.3 billion; financial regulations, $1.2 billion; and industry (specific), $20 billion.

WASHINGTON AMA LEGISLATION Thirty-seven AMA draft bills have been introduced in the 95th US Congress. The bills are sponsored by 113 members of Congress, nine senators and 104 representatives, some of whom are cosponsors of more than one piece of the AMA-originated legislation.

FLORIDA MEDICARE PAYMENTS In a federal court in Florida, US District Court Judge Charles Scott refused DHEW's request to appeal to a higher court the judge's injunction (handed down in July) which has prevented publication of physicians' names and amounts generated for Medicare services. Judge Scott said in his ruling that the court is not convinced about the government's contention that the information diminishes in value during the time that publication has been prohibited. In the case, the AMA and the Florida Medical Association stressed that the data which the government intended to release would create hostility toward the physicians referred to, and that the names would have no informational value. Several months ago, the Florida Medical Association filed suit against DHEW to prevent the release of the list of physicians' names and amounts generated for Medicare services. The AMA later filed suit in US District Court in Chicago on the same issue and, at the direction of the Chicago court, became a coplaintiff in that suit. The AMA had charged that publication of the list of physicians' names would invade the statutory recognized interest of each physician in the confidentiality of information relating to personal income, and would deter physicians from treating Medicare patients in the future.

NORTH DAKOTA MALPRACTICE DECISION The North Dakota Supreme Court has held that much of the state's medical malpractice legislation is unconstitutional. In *Arneson v Olson*, the court applied a "substantive due process" test to the statute, examining whether there is a closed correspondence between statutory classification and legislative goals. In addition to finding the $300,000 recovery limit unconstitutional, the court also held "that the accumulative effect of the limitation of the application of the act to only one category of health care professionals. . . , the arbitrary requirement of consent under conditions of duress and statutory imposition of consent in emergency. . . , the limitation on use of the doctrine of *res ipsa loquitur*. . . , and the near abolition of the collateral source doctrine. . . , is to violate the rights of medical patients in this state to due process of law." Finding that the unconstitutional part of the statute is so important to the act as a whole, the court held the entire statute unconstitutional.

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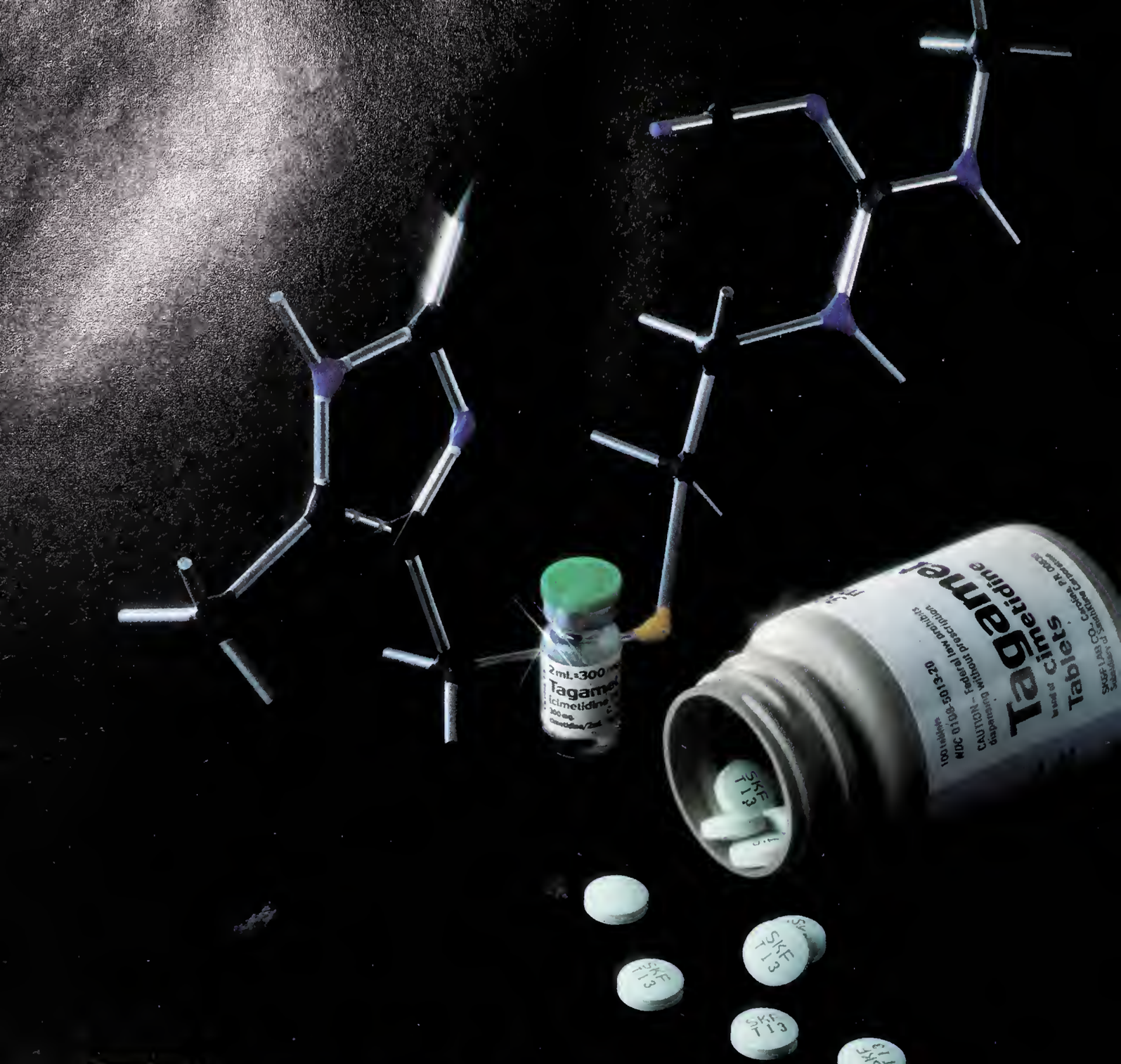

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MEDICINE AND THE LAW

TEXAS AND ILLINOIS APPELLATE COURTS REFUSE TO RECOGNIZE COUNTERSUIT CAUSES OF ACTION

An intermediate appellate court in Illinois has reversed the widely publicized trial court judgment in favor of the countersuit of Leonard Berlin, MD.[1]

A similar countersuit test case being pursued in the Texas appellate court system suffered the same fate. The Corpus Christi Court of Civil Appeals ruled against permitting countersuits by physicians against plaintiff attorneys and their clients who file groundless medical malpractice suits.[2]

The countersuit by the Texas doctor, supported by *amicus curiae* (friend of the court) assistance from the Texas Medical Association, will be appealed to the Supreme Court of Texas. At the time this article was written, it had not been decided if Dr Berlin will take his case to the highest court in Illinois.

For prior articles concerning physicians' countersuits, see Medicine and the Law in the January and February 1977 issues of *Texas Medicine*.

The Illinois case

The $8,000 trial court judgment rendered in favor of Dr Berlin's countersuit was the first major countersuit victory. It was hoped the case would establish precedent for new legal theories that would support counterlitigation.

A malpractice action was filed against Dr Berlin, a radiologist, alleging that he negligently read an x-ray and failed to diagnose a chip fracture in the plaintiff-patient's finger.

The doctor filed suit against the plaintiff, her husband, and her attorneys arguing that they owed him a duty to refrain from willfully and wantonly bringing suit against him without having reasonable cause to believe him guilty of malpractice.

Dr Berlin's petition asserted both negligence and a violation of the Illinois barratry statute which forbids frequently stirring up groundless lawsuits.

The judge ruled against the barratry claim, and the plaintiff-patient voluntarily dismissed her action against Dr Berlin shortly before trial. The countersuit proceeded to trial by jury.

All four counterdefendants were found guilty of willful and wanton misconduct causing injury to Dr Berlin. He was awarded $2,000 in compensatory damages and $6,000 for punishment damages. Both sides filed appeals from the trial court judgment.

An *amicus curiae* brief filed on appeal by the Illinois State Medical Society attempted to support the judgment on the ground of malicious prosecution, a traditional tort theory which, if applicable, would not require the court to make new law.

However, the Illinois appellate court concluded that essential elements of malicious prosecution were neither pleaded nor submitted to the jury. In addition, Illinois is among the minority of jurisdictions (including Texas) that requires special damages in a malicious prosecution action which has been defined as an interference with person or property beyond the normal expense and inconvenience of a lawsuit. Dr Berlin alleged injury to his reputation, mental anguish, loss of revenue for time spent in court, and increased insurance premiums. However, the Illinois appellate court refused to consider any of these as satisfying this requirement.

The basis for Dr Berlin's negligence claim was the failure of the counterdefendant patient/attorneys to conduct adequate pre-suit investigation, including the failure to obtain another physician's opinion.

The Illinois appellate court refused to recognize a negligence theory largely due to the overriding public policy of Illinois that potential litigants should have free and unfettered access to the court system.

The Illinois appellate court also upheld dismissal of Dr Berlin's barratry claim since common law barratry requires stirring up more than one lawsuit and the pleadings in this case only involved the initial malpractice action.

Thus, the results at the intermediate Illinois appellate court level are a reversal of the trial court judgment in Dr Berlin's favor, and a decision that he recover nothing against any of the counterdefendants.

The Texas case

A patient instituted a malpractice action in a Texas court against her physician alleging negligence in her treatment following childbirth. In answering those charges, the physician counterclaimed against the patient and her attorneys on the basis that the malpractice claim was completely groundless, that it was filed without proper pre-suit investigation, that the attorneys were negligent in so doing, and that the plaintiff and her attorneys acted "wantonly and with malice."

The patient and her attorneys then filed a counter-countersuit against the doctor and his attorneys, making the same allegations against them that the doctor and his attorney had made in the first countersuit.

Fifteen months after the suit was filed, the patient voluntarily dismissed her malpractice claim, leaving only the opposing countersuits pending before the trial court. In a supplemental pleading, the doctor added counts alleging malicious prosecution, abuse of process, breach of the Texas Code of Professional Responsibility, and *prima facie* tort to his prior claim, which was based on negligence. *Prima facie* tort is the infliction of intentional harm without justification.

The trial court granted summary judgment against both countersuits on the basis that neither stated a cause of action upon which relief could be granted under Texas law. This ruling denied the doctor his day in court on the basis that even if he were able to prove all of his allegations against the patient and her attorneys, it would still not authorize a recovery under Texas law.

An appeal was taken to the Corpus Christi court from that part of the trial court's judgment decreeing the physician had no viable cause of action against the patient/attorneys for the unjustified filing of the original malpractice suit.

The physician alleged several countersuit theories that would, if recognized by Texas appellate courts, have resulted in the case being sent back to the trial court to determine whether the doctor could prove his contentions. However, the Corpus Christi court refused to recognize any theory supporting a countersuit, and affirmed the summary judgment of the trial court. The legal theories pleaded and the bases of the court's ruling are:

Malicious prosecution—Under Texas law this theory requires not only allegations of malice and lack of probable cause, but also the pleading of special damages, for example, an interference with person or property by reason of the original malpractice suit. The interference required for this tort theory has traditionally been some form of seizure of property pursuant to a court order, actual imprisonment, or other restraint of liberty. As in the *Berlin* case, the doctor in this case alleged that he had incurred substantial litigation expenses, and also that he would suffer lost revenue from his practice due to the defamatory nature of the malpractice claim. The Corpus Christi court refused to construe or apply the special damage rule as being satisfied by these damages.

Abuse of process—This theory requires the use of a writ or other legal directive issued by a court for a purpose other than that for which it is intended. The Corpus Christi court concluded that a physician's countersuit does not really fit this legal mold, since the only writ issued was the initial citation, and it was used for its normal purpose of beginning a lawsuit.

Breach of the Code of Professional Responsibility—This code, adopted by the Supreme Court of Texas, governs the activities of all lawyers licensed in Texas. It contains the following prohibition:

"(A) In his representations of a client, a lawyer shall not: (1) File a suit, assert a position, . . . or take other action on behalf of his client when he knows or when it is obvious that such action would serve merely to harass or maliciously injure another, (2) Knowingly advance a claim that is unwarranted under existing law, except that he may advance such claim . . . if it can be supported by good faith argument for an extension, modification, or reversal of existing law."

The Corpus Christi court held, however, that the sole remedy for a violation of this rule is punishment of the lawyer through a State Bar Grievance Committee, and the court refused to recognize any private cause of action based on a violation of this disciplinary rule.

Negligence—Essential to this theory would be judicial recognition that, under certain circumstances, a lawyer may have a duty to a party other than his client. The argument was made that lawyers should owe a duty to the public in general, and particularly to potential defendants to refrain from filing groundless lawsuits. Since the negligence theory requires breach of such a duty, and since the Corpus Christi court rejected the concept of such a duty running from the plaintiff's attorney to the physician, there was no liability on this ground.

Prima facie tort—This theory had not been previously accepted or rejected in Texas, but decisions in other states involving various contexts have allowed a cause of action for the infliction of intentional harm without justification, even though the acts complained of did not fit into any traditional theory such as malicious prosecution or abuse of process. This theory does not necessarily require a showing of special damages, but the Corpus Christi court considered that requirement to be of such importance that they would not circumvent it by recognizing this new theory.

Conclusion

Under the Corpus Christi and Illinois courts' rulings and reasoning, a plaintiff attorney and plaintiff patient may sue the treating physician for alleged malpractice without being subject to countersuit even though the original suit is totally groundless; there was no pre-suit investigation whatever; and the motive may have been to harass or maliciously injure the defendant doctor.

The crux of both courts' opinions appears to be that rigid adherence to the old special damage rule is essential to assure an open door to the courthouse and not chill such access with an intimidating potential of countersuits, whether based on malicious prosecution or any of the other theories presented.

Will Barber, Mike Mullen
Brown, Maroney, Rose, Baker & Barber
TMA Legal Counsel

[1]*Berlin* v *Nathan*, No 76-1465, Illinois Court of Appeals, Fourth Division, decided Sept 14, 1978.

[2]*Martin* v *Trevino*, No 1287, Corpus Christi Court of Appeals, decided Aug 29, 1978.

ALCOHOLISM:

The Predictable Progression

The pattern for alcohol addiction is substantially the same for almost every excessive drinker. The sequence of symptoms to follow is seen in about 80% of those who become victim to this powerful addiction and is the basis for the diagnosis of excessive drinking:

1. The excessive drinker begins drinking "socially" like millions of others. He soon begins drinking more than those around him in the same length of time.
2. He drinks faster than those around him. As a natural consequence, he becomes "drunk" more often than others.
3. Now he "has a few" before the party, or orders doubles. He has developed the addicts' classic tolerance for the drug. Drinking more and more, he experiences temporary amnesia.
4. He begins to find himself drunk nearly every time he drinks. The social consequences of drinking are now causing noticeable problems in his work and relationships.
5. He then loses the ability to control his drinking. He drinks until he can drink no more, and sometimes goes on weekend binges.
6. Eventually early morning drinking becomes necessary. He now begins to hide his dependence — and his bottles.
7. At this time most victims are beginning to enter the stage of severe physical deterioration. During periods of alcohol withdrawal, tremors and "butterflies" begin to appear.
8. In many cases delirium tremors begin. Hallucinations are very subjective and the excessive drinker now has difficulty obtaining rest. He is assailed by waves of unwarranted fear and emotional trauma.
9. With this deterioration comes brain damage sufficient enough that less and less alcohol is needed to induce intoxication. At this stage, his tolerance plummets greatly.
10. Liver damage is now severe, due to the toxic effects of the alcohol, inadequate diet and, some research indicates, the inability of the alcohol-ridden body to absorb vitamins. The cardiovascular system deteriorates.
11. Excessive drinking can now be fatal with an increased risk of accident, stroke or heart attack. Chance of death from other mortal diseases becomes much higher than normal.
12. Without immediate professional treatment the prognosis is guarded.

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INDICATIONS: To control cough and to provide symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis and allergic rhinitis.
CONTRAINDICATIONS: Hypersensitivity to any ingredient of the drug. Do not use in patients receiving monoamine oxidase inhibitors.
PRECAUTIONS: Use with caution in individuals with hypertension, cardiovascular disease, diabetes, hyperthyroidism and advanced age. Since drowsiness may occur, patients should be cautioned about driving or operating machinery.
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Phenylpropanolamine HCl	20 mg.
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PRECAUTIONS: Hypertension, cardiovascular disease, hyperthyroidism. Causes true addiction. Patients should be cautioned against driving or operating mechanical equipment requiring alertness.
SIDE EFFECTS AND HAZARDS: Large doses may cause hypertension, headache, tachycardia, inability to concentrate, dizziness, lassitude, muscular weakness, palpitations, dryness of mouth, gastrointestinal disturbances, dermatitis.
DOSAGE: Adults, orally 2 teaspoonfuls every 4 to 6 hours. Children 6 to 12 years of age, 1 teaspoonful every 4 to 6 hours. Children 1 to 6 years of age, ½ to 1 teaspoonful every 4 to 6 hours, according to age. Infants: three months, 3 to 4 drops; six months, 6 to 8 drops. Dose for infants and children should not be repeated more than 4 times in any 24-hour period.

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In the TMA Library

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MEETINGS

CURRENT NATIONAL MEETINGS

AMERICAN MEDICAL ASSOCIATION. The 32nd winter scientific meeting of the American Medical Association will be held Dec 7–10, 1978, in Las Vegas, at the Las Vegas Convention Center. Each winter the meeting is held to provide American physicians with a broad-based learning experience in new developments in medical care. In addition to more than 50 continuing education courses in all aspects of medical care, there will be state-of-the-arts lectures in selected medical areas, other lectureships, teaching luncheons, scientific exhibits, videoclinics, motion pictures, telecourses, and teaching by videodisc. National medical societies will for the first time provide programs under their own sponsorship. Some topics new to the scientific program will include lectures on the behavioral aspects of compulsive gamblers and guides for treatment, the physician's responsibility in ensuring provision of cost-effective health care, holistic medicine and an evaluation of how useful it is, and the psychiatric behavior of both the terrorist and the victim. Contact: AMA, Council on Continuing Physician Education, 535 North Dearborn St, Chicago, IL 60610.

SOUTHWESTERN GYNECOLOGIC ASSEMBLY. "Human Sexual Differentiation and Function" will be the subject of the 13th annual meeting of the Southwestern Gynecological Assembly Dec 7–9, 1978, at the Sheraton-Dallas Hotel in Dallas. The program was developed in cooperation with District VII of the American College of Obstetricians and Gynecologists and is approved for 25 cognates by the ACOG. Contact: David M. Bookout, MD, 8210 Walnut Hill Lane, Dallas, TX 75231.

CALENDAR OF LISTINGS

■ Denotes Texas Meetings

DECEMBER

AMERICAN ACADEMY OF DERMATOLOGY, San Francisco, Dec 2–7, 1978. Bradford W Claxton, 820 Davis St, Evanston, Ill 60201.

AMERICAN ACADEMY OF PSYCHOANALYSIS, Palm Springs, Calif, Dec 1–3, 1978. S Baer, 40 Gramercy Park N, New York, NY 10010.

AMERICAN COLLEGE OF CHEMOSURGERY, San Francisco, Dec 1–2, 1978. G Berstein, MD, 5420 Barnes Ave NW, Seattle, WA 98107.

AMERICAN SOCIETY FOR DERMATOLOGIC SURGERY, San Francisco, Dec 5, 1978. DE Bormley, MD, 210 S Grand Ave, Glendora, CA 91740.

SOUTHERN SURGICAL ASSOCIATION, Hot Springs, Va, Dec 4–6, 1978. W Dean Warren, MD, Emory Univ, Atlanta, GA 30033.

■ SOUTHWESTERN GYNECOLOGIC ASSEMBLY, Dallas, Dec 7–9, 1978. 3630 Noble Ave, Dallas 75204.

JANUARY

AMERICAN COLLEGE OF ALLERGISTS, San Francisco, Jan 27–31, 1979. Frances P White, 2141 Fourteenth St, Boulder, CO 80302 313/447-8111.

AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS, Phoenix, Ariz, Jan 20–26, 1979. JL Normoyle, 2100 W Harrison St, Chicago, IL 60612.

AMERICAN SOCIETY OF CONTEMPORARY MEDICINE AND SURGERY, Las Vegas, Jan 14–19, 1979. John G Bellows, 6 N Michigan Ave, Room 1110, Chicago, IL 60602.

AMERICAN SOCIETY OF CONTEMPORARY OPHTHALMOLOGY, Las Vegas, Jan 14–19, 1979. John G Bellows, 6 N Michigan Ave, Room 1110, Chicago, IL 60602.

AMERICAN SOCIETY OF LAW AND MEDICINE, San Diego, Jan 25–27, 1979. A Doudera, 454 Brookline Ave, Boston, MA 02215.

NATIONAL ASSOCIATION OF PRIVATE PSYCHIATRIC HOSPITALS, Marco Island, Fla, Jan 14–18, 1979. Robert Thomas, 1701 K St, NW, Suite 1205, Washington, DC 20006.

SOCIETY OF THORACIC SURGEONS, Phoenix, Ariz, Jan 14–17, 1979. Walter Purcell, 111 E Wacker Dr, Chicago, IL 60601.

SOUTHERN CLINICAL NEUROLOGICAL SOCIETY, Fort Lauderdale, Fla, Jan 22, 1979. BL Bercaw, MD, 1011 Jeffords St, Clearwater, FL 33516.

SOUTHERN SOCIETY FOR PEDIATRIC RESEARCH, New Orleans, Jan 17–20, 1979. Kenneth A Starling, MD, Baylor College of Medicine, Houston, TX 77030.

■ TEXAS MEDICAL ASSOCIATION, Winter Conference, Austin, Jan 19–21, 1979. C Lincoln Williston, Exec Dir, 1801 N Lamar Blvd, Austin, TX 78701.

FEBRUARY

AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS, San Francisco, Feb 22–27, 1979. Charles Heck, MD, 444 N Michigan Ave, Chicago, IL 60611.

AMERICAN CLEFT PALATE ASSOCIATION, San Diego, Feb 25–Mar 1, 1979. Flora P Berk, 331 Salk Hall, University of Pittsburgh, Pittsburgh, PA 15261.

AMERICAN COLLEGE OF CHEST PHYSICIANS, Intl Conference on Occupational Lung Disease, San Francisco, Feb 27–Mar 2, 1979. Dale Brady, Director of Education, 911 Busse Highway, Park Ridge, IL 60068.

AMERICAN GROUP PSYCHOTHERAPY ASSOCIATION, New York, Feb 15–19, 1979. Ms MS Block, 1995 Broadway, 14 Floor, New York, NY 10023.

AMERICAN HOSPITAL ASSOCIATION, Washington, DC, Feb 4–7, 1979. J Alexander McMahon, 840 N Lake Shore, Chicago, IL 60601.

■ DISTRICT 1 MEDICAL SOCIETY, Alpine, Tex, Feb 3, 1979. George Hochrein, 1301 Montana, El Paso, TX 79902.

FEDERATION OF WESTERN SOCIETIES OF NEUROLOGICAL SCIENCES, Scottsdale, Ariz, Feb 22–25, 1979. Larry Stern, Univ of Ariz, Dept of Neurology, Tucson, AZ 85721.

SOUTH CENTRAL ASSOCIATION OF BLOOD BANKS, Albuquerque, NM, Feb 21–23, 1979. Marti Ginest, Box 4679, Austin, TX 78765.

DECEMBER

Basic Sciences: Microbiology & Immunology

Title: 5th Annual Texas Medical Center Symposium on Infectious Diseases and Microbiology-Newer Antibiotics, Chemotherapeutic Agents and Vaccines-Use in Clinical Practice

Sponsors: UT Health Science Center at Houston, UT Medical School at Houston, Baylor College of Medicine, UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute

Location of course: UT Medical School Lecture Hall 1, Texas Medical Center, Houston

Date: Dec 2, 1978

Duration: Continuous; 1 day; 8 am–5 pm

Fee: $50

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 7 hours

Contact: Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston, TX 77025

Cardiovascular Disease

Title: Selected Topics in Cardiology

Sponsors: Division of Continuing Education, UT Health Science Center at Houston

Location of course: Methodist Hospital Auditorium, 6516 Bertner, Houston

Date: Dec 6–7, 1978

Duration: Continuous; 2 days; Wednesday–Thursday; 8 total course hours

Fee: None

Designed for: General practitioners; Specialists in Family Medicine, Cardiovascular Disease

Enrollment: Open

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 8 hours

Teaching Methods: Audiovisual materials, lecture, open question

Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UT Health Science Center at Houston, Box 20367, Houston 77025

Obstetrics & Gynecology

Title: Human Sexual Differentation and Function

Sponsors: Southwestern Gynecologic Assembly, Dallas

Location of course: Sheraton-Dallas Hotel

Date: Dec 7–9, 1978

Duration: Continuous; 3 days; 5 hours instruction per day; Thursday–Saturday; 15 total course hours

Fee: $150; Residents, $50

Designed for: Specialists in Obstetrics & Gynecology

Enrollment: Maximum, 250

Credit: Category 1, AMA Physician's Recognition Award; 15 hours; American College of Obstetricians and Gynecologists, 25 cognates

Teaching methods: Audiovisual materials, lecture, open question, panel

Contact: E.B. Mendel, MD, President, Southwestern Gynecologic Assembly, 3630 Noble Ave, Dallas 75204

Ophthalmology

Title: Sixth Cataract Surgical Congress

Sponsors: Department of Ophthalmology, Baylor College of Medicine, Houston

Location of course: Galleria Plaza, 5333 Westheimer, Houston

Date: Dec 2–7, 1978

Duration: Continuous; 6 days

Fee: To be announced

Designed for: Specialists in Ophthalmology

Credit: Category 1, AMA Physician's Recognition Award; 34 hours

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston 77030

Orthopedic Surgery

Title: The Challenge of the Lumbar Spine

Sponsors: UT Health Science Center at San Antonio School of Nursing, San Antonio Association of Occupational Health Nurses, Wilford Hall Medical Center

Location of course: St Anthony Hotel, San Antonio

Date: Dec 15–16, 1978

Duration: Continuous; 2 days

Fee: $75

Designed for: Specialists in Neurosurgery and Orthopedics

Credit: Category 1, AMA Physician's Recognition Award

Teaching methods: Audiovisual material, lecture, panel

Contact: Office of Continuing Education, UTHSC at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284 512/691-6295

Pediatrics

Title: 3rd Annual Course in Pediatrics for the Practitioner

Sponsors: UT Health Science Center at San Antonio

Location of course: San Antonio Convention and Visitors Bureau, 210 South Alamo, San Antonio

Date: Dec 15–17, 1978

Duration: Continuous; 3 days

Fee: $165

Credit: Category 1, AMA Physician's Recognition Award; 16 hours

Contact: Office of Continuing Education, UTHSC at San Antonio, 7703 Floyd Curl Dr, San Antonio 78284 512/691-6295

Psychiatry

Title: Phenomenology and Treatment of Alcoholism

Sponsors: Department of Psychiatry, Baylor College of Medicine, Houston

Location of course: Shamrock Hilton Hotel, 6900 Main, Houston

Date: Dec 7–8, 1978

Duration: Continuous; 2 days; Thursday–Friday; 16 total course hours

Fee: $175

Designed for: General practitioners; Specialists in Psychiatry

Credit: AAFP Prescribed; Category 1, AMA Physician's Recognition Award; 16 hours

Teaching methods: Audiovisual materials, lecture, open question, panel

Contact: Fred M. Taylor, MD, Director, Office of Continuing Education, Baylor College of Medicine, 1200 Moursund, Houston

JANUARY

Arthritis & Rheumatism

Title: Arthritis: What's New in Management?

Sponsors: UT Health Science Center at Dallas, Rheumatic Diseases Unit, Dept of Internal Medicine; A. Webb Roberts Center for Continuing Education

Location of course: Marshall, Texas

Date: Jan 20, 1979

Duration: Continuous; 1 day; Saturday; 8am–4pm

Fee: $10

Designed for: Specialists in General Medicine, Internal Medicine, Family Practice, Orthopedic Surgery

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award; 6 hours

Contact: George J. Race, MD, UTHSC at Dallas, 5323 Harry Hines Blvd, Dallas, TX 75235

Cardiology

Title: Advances in Cardiovascular Medicine and Surgery

Sponsors: UT Medical School at Houston

Location of course: Aboard Flagship *Stella Solaris*

Date: Jan 13–21, 1979

Duration: Continuous; 9 days; Saturday-Sunday

Fee: $125 course fee + cruise passenger fare

Designed for: Specialists in Cardiology

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Credit: Category 1, AMA Physician's Recognition Award; 28 hours

Contact: Eugene W. Adcock, MD, Assistant Dean for Continuing Education, UT Medical School at Houston, Box 20708, Houston, TX 77025

Emergency Care

Title: Radiology of the Acutely Ill & Injured Patient-Update 1979

Sponsors: UT Health Science Center at Houston; UT Medical School at Houston and School of Allied Health Sciences

Location of course: Stouffer's Greenway Plaza Hotel, Houston

Date: Jan 26–27, 1979

Duration: Continuous; 2 days; Friday-Saturday; 8am–5pm

Fee: $150

Designed for: Specialists in Family Practice, Internal Medicine, Radiology, Pediatrics

Enrollment: Minimum, 100; maximum, 150

Teaching methods: Audiovisual materials, lecture, open question, panel, seminar

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award; 14 hours

Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UTHSC at Houston, Box 20367, Houston, TX 77025

Family Medicine

Title: Geropsychiatry-Fourth Annual Psychiatry Symposium

Sponsors: Texas Tech University School of Medicine

Location of course: Civic Center, El Paso

Date: Jan 18–20, 1979

Duration: Continuous; 3 days; Thursday-Saturday

Fee: Physicians, $150; nonphysicians, $75

Designed for: General practitioners; Specialists in Family Practice, General Medicine, Geriatrics, Internal Medicine, Psychiatry

Teaching methods: Audiovisual materials, clinical conference, lecture, seminar

Credit: AAFP, Elective; Category 1, AMA Physician's Recognition Award; APA, Category 1; CEARP; 15½ hours

Contact: James N. Burkeholder, MD, Continuing Education, Texas Tech University School of Medicine, Lubbock, TX 79430

General Medicine

Title: Basic CPR

Sponsors: Texas Medical Association

Location of course: Marriott Hotel, Austin

Date: Jan 20, 1979

Duration: Continuous; ½ day; Saturday; 1–5pm

Fee: $40, TMA members; $45, nonmembers

Designed for: Specialists in Family Practice, General Medicine

Credit: Category 1, AMA Physician's Recognition Award; 4 hours

Contact: Dale Willimack, Texas Medical Association, 1905 N Lamar Blvd, Austin, TX 78701 512/477-6704

Title: Practical Office Gynecology

Sponsors: Texas Medical Association

Location of course: Marriott Hotel, Austin

Date: Jan 21, 1979

Duration: Continuous; ½ day; Sunday; 8am–1pm

Fee: $55, TMA members; $60, nonmembers

Designed for: Specialists in Family Practice, General Medicine

Credit: Category 1, AMA Physician's Recognition Award; 5 hours

Contact: Dale Willimack, Texas Medical Association, 1905 N Lamar Blvd, Austin, TX 78701 512/477-6704

Title: Update: Adult & Pediatric Urinary Tract Infections

Sponsors: Texas Medical Association

Location of course: Marriott Hotel, Austin

Date: Jan 21, 1979

Duration: Continuous, ½ day; Sunday; 8am–1pm

Fee: $55, TMA members; $60, nonmembers

Designed for: Specialists in Family Practice, General Medicine

Credit: Category 1, AMA Physician's Recognition Award; 5 hours

Contact: Dale Willimack, Texas Medical Association, 1905 N Lamar Blvd, Austin, TX 78701 512/477-6704

Title: Office Management of Anorectal Diseases

Sponsors: Texas Medical Association

Location of course: Marriott Hotel, Austin

Date: Jan 21, 1979

Duration: Continuous; ½ day; Sunday; 8am–1pm

Fee: $55, TMA members; $60, nonmembers

Designed for: Specialists in Family Practice, General Medicine

Credit: Category 1, AMA Physician's Recognition Award; 5 hours

Contact: Dale Willimack, Texas Medical Association, 1905 N Lamar Blvd, Austin, TX 78701 512/477-6704

Title: Diagnosis & Management of Common Allergic Problems

Sponsors: Texas Medical Association

Location of course: Marriott Hotel, Austin

Date: Jan 21, 1979

Duration: Continuous: ½ day; Sunday; 8am–1pm

Fee: $55, TMA members; $60, nonmembers

Designed for: Specialists in Family Practice, General Medicine

Credit: Category 1, AMA Physician's Recognition Award; 5 hours

Contact: Dale Willimack, Texas Medical Association, 1905 N Lamar Blvd, Austin, TX 78701 512/477-6704

Internal Medicine

Title: Diabetes in Review—Clinical Conference 1979

Sponsors: American Diabetes Association

Location of course: Fairmont Hotel, Dallas

Date: Jan 22–24, 1979

Duration: Continuous; 3 days; Monday-Wednesday; 9am–5pm

Fee: $120, physicians; $75, nonphysicians

Designed for: General practitioners; Specialists in Internal Medicine

Enrollment: Minimum, 250; maximum, 600

Teaching methods: Audiovisual materials, clinical conference, lecture, open question, panel

Credit: AAFP, Elective; Category 1, AMA Physician's Recognition Award; 17 hours

Contact: Harry Hansen, American Diabetes Association, 600 5th Ave, New York, NY 10020

Ophthalmology

Title: Basic Science Course in Ophthalmology

Sponsors: UT Medical School at Houston

Location of course: Hermann Hospital, Houston

Date: Jan 8–Mar 2, 1979

Duration: Continuous; 5 days a week for 40 weeks

Fee: $775

Designed for: Specialists in Ophthalmology

Credit: Category 1, AMA Physician's Recognition Award; 235 hours

Contact: Eugene Adcock, MD, Assistant Dean for Continuing Education, UT Medical School at Houston, Box 20708, Houston, TX 77025

Other: Infectious Diseases

Title: Hospital Utilization of Antimicrobial Agents

Sponsors: Hendrick Medical Center, Abilene

Location of course: Auditorium, Hendrick Medical Center

Date: Jan 27, 1979

Duration: Continuous; 1 day; Saturday; 9:30am–3:30pm

Fee: $45

Designed for: General practitioners

Credit: AAFP, Elective; Category 1, AMA Physician's Recognition Award; 4 hours

Contact: Richard D. Johns, MD, Vice President for Medical Affairs, Hendrick Medical Center, Abilene, TX 79601 915/ 677-3551

Pediatrics

Title: Current Advances in Pediatric Surgery

Sponsors: UT Health Science Center at Houston

Location of course: Main Building, Rm 3.001, UT Medical School at Houston

Date: Jan 26–28, 1979

Duration: Continuous; 3 days; Friday-Sunday; 8am–5pm

Fee: $125

Designed for: Specialists in Pediatrics, Family Practice

Teaching methods: Audiovisual materials, lecture, open question, seminar

Credit: AAFP, Prescribed; Category 1, AMA Physician's Recognition Award, 13 hours

Contact: Sam A Nixon, MD, Director, Division of Continuing Education, UTHSC at Houston, Box 20367, Houston, TX 77025

Radiology and Radioisotopes

Title: External Beam, Interstitial and Intracavitary Dosimetry—Principles

Sponsors: UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute

Location of course: Texas Medical Center, Houston

Date: Jan 2–12, 1979

Duration: Continuous; 10 days; 5 days a week, 1–9pm

Fee: $350

Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UTHSC at Houston, Box 20367, Houston, TX 77025

Title: External Beam, Interstitial and Intracavitary Dosimetry-Manual and Computer Methods of Calculation

Sponsors: UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute

Location of course: Texas Medical Center, Houston

Date: Jan 15–26, 1979

Duration: Continuous; 10 days; Monday-Friday; 8:30am–5pm

Fee: $350

Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UTHSC at Houston, Box 20367, Houston, TX 77025

Title: High Energy Electron, S-Ray and Neutron Dosimetry

Sponsors: UT Health Science Center at Houston; UT System Cancer Center, M.D. Anderson Hospital and Tumor Institute

Location of course: Texas Medical Center, Houston

Date: Jan 29–Feb 3, 1979

Duration: Continuous; 5½ days; Monday-Saturday; 9am–9:30pm, 9am–12pm Sat

Fee: $250

Contact: Sam A. Nixon, MD, Director, Division of Continuing Education, UTHSC at Houston, Box 20367, Houston, TX 77025

WHAT'S NEW

INTERNAL MEDICINE—DIABETES UPDATE

William P. Deiss, Jr, MD

The incidence of diabetes in the US is increasing. Juvenile diabetics live longer and their progeny increase the pool of genetically susceptible subjects. The overnutrition in our population almost certainly plays a role as well.

Diagnosis

Juvenile, ketosis-prone diabetes does not cause much of a diagnostic problem. The ancient physician noted wasting in the face of polyphagia, polydipsia, and polyuria, found the urine tasted sweet, and predicted death in coma. We note the same clinical features, find sustained fasting hyperglycemia and frequently ketonemia, and turn quickly to treatment with insulin. While as many as one third of such patients do escape serious atherosclerotic and microangiopathic vascular disease and neuropathy, the majority will proceed to various of these complications with retinopathy, nephropathy, peripheral neuropathy, premature larger blood vessel disease, and complications with pregnancy. Certainly the vast majority of these patients can be shown to have a subnormal or nearly absent production of insulin following a glucose test. This defect is so common that it is not necessary to test for it in this group for practical purposes.

About 90% of the diabetics in this country have a metabolic disorder that behaves in a somewhat different manner. These maturity-onset, ketosis-resistant diabetics are probably a heterogeneous group who have in common hyperglycemia. They may be and remain asymptomatic, or may decompensate with ketoacidosis or hyperosmolar coma, or may go on to all the complications of the juvenile-onset disease. Characteristically the newly discovered adult-onset diabetic has an exaggerated insulin secretion to a glucose load; that is, his insulin will rise to higher levels than normal. It is thought by some now that one of the defects in such individuals is that the hyperglycemia does not appropriately "turn off" continued production of the hyperglycemia hormone, glucagon. For practical purposes when an adult is found to have sustained hyperglycemia of 200 mg/dl, a glucose tolerance test is not necessary and it is appropriate to consider he has diabetes and he should be appropriately treated. The real dilemma comes in predicting which patients will develop the complications and in defining what is an "abnormal" level of blood glucose. There is now no doubt that aging is associated with changes in blood glucose. For example, fasting blood glucose increases 2 mg/dl per decade during adult life, postprandial levels increase 4 mg/dl, and following a glucose challenge an increase of 6–13 mg/dl per decade is found. If we adhere to usual strict criteria then 50–60% of the 60- and 70-year-old population is "abnormal." It may be that these glucose responses are the cause of some of the vascular diseases of aging, but we do not know this, and it is probably inappropriate to act upon such a surmise and treat apparent glucose intolerance. Most authorities now believe that diabetes is overdiagnosed in the US and we certainly caution against proceeding to treat the asymptomatic adult with only minor abnormality in blood glucose.

Etiology and Pathogenesis

Clinicians have long known there is a hereditary component to diabetes and much effort is now being devoted to defining the nature of the genetic abnormality and the pattern or patterns of inheritance, but there are too many confusing data for a simple synthesis at this time. One interesting notion now is that the juvenile-onset diabetic has a genetic susceptibility to islet cell damage by virus infection or to autoimmune damage, or both. Evidence comes mostly from experimental models where Coxsackie virus in particular and also mumps virus have induced diabetes in rats, and from a contagious form of diabetes in guinea pigs, but also from a few reports of human diabetes developing after viral disease. This kind of damage or that due to autoimmune response would account for the poor and eventually absent insulin response to glucose loads.

It has also long been recognized that the adult-onset diabetic is apt to be overweight or frankly obese, and that the diabetes may improve or may disappear with return to normal weight. Whether the obese diabetic's resistance to the elevated insulin level is the result of excess glucagon or a decrease of insulin receptors on the cells is a hot issue at present and one with considerable clinical significance.

Laboratory

One important innovation has been the finding that normal hemoglobin becomes bound to glucose when levels of the latter are chronically and significantly elevated to form a hemoglobin A_{1c} which can be measured accurately and easily. The relevance of this to clinical practice is that, particularly in the labile diabetic, assay for Hgb A_{1c} serves as a useful indicator of the degree of hyperglycemia that bathes the tissues over a period of days far better than does the record of glucosuria. For example, some labile diabetics may have short periods of heavy glucosuria interspersed with normal levels. Such patients will not have important elevations of Hgb A_{1c}, whereas patients with elevated levels of Hgb A_{1c} can be assumed to have more

chronic hyperglycemia calling for major adjustments in control. We hope that the Food and Drug Administration will approve general usage of Hgb A_{1c} measurement soon, for we and others are finding it a valuable adjunct to management.

Therapy

Diabetic ketoacidosis treatment principles remain the same: restoration of body fluid and electrolyte losses, termination of the ketone acid production, and lowering of blood glucose levels with insulin. Until relatively recently, the traditional insulin administration—50–100 units of regular insulin intravenously or subcutaneously followed by frequent subcutaneous insulin injection—resulted in patients commonly receiving 500–1,500 units of insulin in the first 24 hours. It was not uncommon with this regimen to see hypoglycemia toward the end of the program, and hypokalemia was a worrisome problem. Furthermore, a rare patient's very high blood glucose level would plummet so rapidly that cerebral edema occurred, and mortality in this small group was very high. Within the past five years there have been many studies showing that *low-dose insulin* treatment results in much smoother control with fewer episodes of hypoglycemia and hypokalemia. It is now customary to begin with a loading dose of 0.33 units crystalline insulin per kg of body weight, or 23 units for 68.1 kg (150-lb) patient, as a bolus followed either by a constant intravenous infusion with a carefully monitored infusion pump of 7 units (regardless of the body weight) per hour of crystalline insulin in 0.9% sodium chloride solution containing 2.5% human albumin, or by hourly intramuscular injection into the deltoid muscles of 7 units crystalline insulin. We prefer the hourly intramuscular injection on our service because it is somewhat simpler to get started. The blood glucose and plasma acetone values must be monitored hourly. If the initial blood glucose level has not fallen by at least 10% in the first hour, repeated boluses of insulin (ie, 0.33 units/kg hourly) are given intravenously until there is a 10% fall in blood glucose level. Once the blood glucose has reached a level of 250 mg/dl, it is wise to begin adding glucose to the intravenous fluids. If the ketoacidosis is still not under control at this point (that is, if the bicarbonate concentration has not risen above 15 mEq/liter, pH above 7.3, and plasma acetone negative at a 1:2 dilution), then 4 to 12 units of insulin should be administered every two hours by the route chosen previously (by intravenous infusion or by intramuscular injection). When the ketosis clears and the blood glucose level reaches 150 mg/dl, no further insulin is given and the usual format is followed thereafter. With this low-dose regimen, it ordinarily requires about 60 units of insulin to achieve a blood glucose level of 250 mg/dl, and about 85–100 units for total control—much less than with the traditional method. It must be emphasized again that this therapy should be used only when the standard fluid and electrolyte replacement is attended to, when hourly blood glucose and potassium determinations are available, and when the physician is prepared to supervise the regimen. We have found it convenient and safer to utilize this low-dose treatment. It now appears that the "insulin resistance" we once considered a universal feature of diabetic ketoacidosis is in fact mild and is not a cause for using the large doses of insulin previously employed routinely. We remain alert, however, for the rare patient who may truly be insulin-resistant who does not respond in the first one to two hours, and stand prepared to increase the insulin dosage more rapidly.

Chronic Management

The insulin-deficient, juvenile-onset, ketosis-prone diabetic patient needs insulin, a diet to maintain a normal weight and activity, and continued encouragement and surveillance for treatable complications. Blindness can be delayed or even prevented in some by judicious use of new ophthalmologic techniques such as treatment of aneurysms with photocoagulation. Periodontal disease seems to me to be too frequently overlooked by physicians. A most gratifying improvement in diabetic control sometimes follows drainage of a periapical abscess. We must watch for urinary tract infection in this population.

While the controversy about the use of oral hypoglycemia drugs in management of adult-onset diabetes continues, there is no disagreement over the essential place of weight loss in the obese diabetic. Essentially all asymptomatic obese diabetics should have a serious trial of weight reduction. Many who have symptoms and no ketosis will respond to weight loss only. If the physician is a "true believer" (and he should be) in the value of reducing the obese diabetic, his powers of persuasion will become the critical factor in patient compliance. Even with incantations, however, some patients simply do not lose weight and refuse insulin; we continue to use oral hypoglycemia drugs, after explaining the potential risks to the patient, and most physicians concur in this recommendation.

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Bronchial asthma

J. Andrew Grant, MD

Asthma is characterized by an increased responsiveness of the airways to various stimuli including immunological, physical, chemical, infectious and emotional factors. The hallmark is slowing of forced expiration which changes in severity either spontaneously or as a result of therapy. Obstruction of airways is produced by spasm of bronchial smooth muscle, by edema of bronchial mucosa, and by impacted mucous plugs.

Asthma exists worldwide and affects individuals at all ages. The incidence in the general population is 5% or greater. A higher incidence of asthma is reported in developed countries and in upper socioeconomic classes. More than 2,000 deaths each year are directly attributed to asthma, but this figure considerably underestimates the morbidity caused by this illness. Taken as a whole, the allergic diseases are a major cause of absenteeism from school and work and absorb a large share of the national health budget.

Pathogenesis of Asthma

A familial clustering occurs with asthma and other allergic disorders including hay fever (allergic rhinitis), anaphylaxis, and eczema. No clear mendelian pattern of inheritance has been demonstrated.

Many allergic reactions depend upon the synthesis of reaginic antibodies which are predominantly of the IgE class. The total serum concentrations of IgE are higher in allergic than in normal individuals, but the overlap is considerable. One investigator proposed that one gene controls the total concentration of IgE synthesized. Other studies have shown that the ability to make antibodies against common allergic substances, such as pollens and molds, is also inherited, and this genetic trait may be linked to the histocompatibility (HL-A) genes.

IgE antibodies bind readily to basophils and mast cells. When these antibodies combine with specific allergens, a variety of low-molecular-weight substances are released (Fig 1), which potentially are responsible for the pathological responses seen in IgE-mediated hypersensitivity reactions.[1]

Attacks of asthma in most affected children appear to be related to allergic factors. This relationship is less true in adults. Many additional nonimmunological factors have been proposed to explain the hyperreactivity of bronchi, which is the central feature of asthma. Perhaps one of the most provocative is the beta-adrenergic blockade theory[2] which postulates that asthmatics are less responsive to endogenous adrenalin. This compound is perhaps a key factor in maintaining normal bronchodilatation. Also, during acute attacks, asthmatics often are observed to be less responsive to exogenous drugs of this same class. Some investigators have presented evidence that all the tissues of patients with asthma are less responsive to beta-adrenergic drugs than normal.

Other theories which have been advanced to explain the inherited basis of asthma include predominance of vagal tone, deficient synthesis of beta-adrenergic agents, an intrinsic defect of bronchial smooth muscle, and an inadequacy of nonadrenergic suppressor fibers. In the final analysis, each theory lacks substantive proof.

Immunological Considerations

An interesting model has been devised for exploring the allergic basis of bronchial asthma. When human lung fragments react with serum from an allergic donor, the tissue becomes sensitized to respond to appropriate antigens. It is thought that IgE antibodies from the allergic serum become attached to mast cells which are abundantly distributed around bronchi. The combining of IgE molecules with antigens triggers a series of intracellular events leading to release of a number of chemical mediators (Fig 1) by mast cells. (See reference 1 for a discussion of the function of these substances.) The combined biological effects of these mediators are sufficient to produce the pathological features of bronchial asthma described herein.

Eosinophil chemotactic factor is a small peptide which causes the blood eosinophil to move into the site of an allergic reaction. The eosinophil is frequently recovered from the sputum of asthmatic subjects. The function of this cell remains a highly controversial subject, but the weight of recent investigations suggests that the eosinophil may play a role in modulating the allergic reaction. The eosinophil releases three separate substances which antagonize chemical mediators released by mast cells and basophils. An enzyme, arylsulfatase, can cleave a

1. Factors produced by blood basophils and tissue mast cells.

1. Histamine
2. Slow reacting substance
3. Platelet activating factor
4. Kallikrein of anaphylaxis
5. Neutrophil chemotactic factor
6. Eosinophil chemotactic factor

sulfate ester from slow reacting substance, leading to its inactivation. Phospholipase D can destroy platelet activating factor, and histaminase can inactivate histamine. Eosinophils may also ingest antigen-antibody complexes. Thus, the basophil or mast cell initiates an allergic response and the eosinophil limits it.

Autonomic Regulation of the Tracheobronchial Tree

A. Parasympathetic Nervous System

The vagus plays a major role in maintaining normal bronchial muscle tone. Also, the respiratory system contains numerous receptors which respond to stretch as well as chemical stimulation. These receptors are activated by pressure changes in the trachea induced by coughing, as well as by irritant factors in inspired air. Stimulation of these receptors initiates a reflex arc which triggers efferent vagal nerves to release acetylcholine. The effects of acetylcholine include increased mucous secretion and contraction of bronchial smooth muscle as well as vasodilatation. This pathway is probably the mechanism whereby asthmatics respond to noxious stimuli. Emotional triggering of asthma probably is also mediated through the vagal nervous system, and can be effectively blocked by atropine.

The function of the mast cell may also be modulated by cholinergic stimulation. Acetylcholine increases synthesis of cyclic-GMP and potentiates the release of histamine and other mediators (Fig 1). In turn, histamine may increase the sensitivity of vagal receptors in the trachea, but the exact role of these mechanisms in asthma remains unclear.

A classical test for asthma is inhalation of methacholine, which is chemically related to acetylcholine. Asthmatics will develop bronchospasm with doses of this drug which do not affect normal subjects.

2. Stages of bronchial asthma.

Stage	pCO_2 (mm Hg)	pO_2 (mm Hg)
1	Normal or Slightly Reduced (35–40)	Near Normal
2	Reduced (< 35)	Reduced
3	Normal (35–45)	Moderate to Severely Reduced
4	Increased (> 45)	Severely Reduced

B. Sympathetic Nervous System

The effects of the beta-adrenergic compounds are essentially opposite to those of acetylcholine mentioned above. These include reduced mucus production, bronchodilatation and vasoconstriction. The adrenergic receptors in the tracheobronchial tree are primarily of the beta-2 category, whereas those of the myocardium are primarily beta-1. Beta-2-adrenergic drugs increase the synthesis of cyclic-AMP by mast cells and basophils and thereby reduce the release of histamine and other mediators. Also, these drugs directly produce bronchodilation.

C. Nonadrenergic Inhibitory Nervous System

Recently, Richardson and Beland[3] identified a third neurological system. Absence of this system in the gastrointestinal tract is associated with Hirschsprung disease. Absence or deficiency of such an inhibitory system in the lung has been postulated in asthma.

Pathophysiology of Asthma

A. Anatomy

The microscopic changes observed in asthma include widespread edema, smooth muscle spasm, excess mucus production and regional hyperinflation as well as focal atelectasis. Mucus is characteristically thickened and filled with multiple cell types as well as Charcot-Leyden crystals and Curschmann's spirals. The predominant cell is the eosinophil but neutrophils and macrophages are seen also. The spirals represent cases of smaller airways. Sometimes bacteria are seen. As suggested earlier, most of these changes can be explained on the basis of substances released from mast cells and basophils.

B. Pulmonary Function Studies

Obstruction of airways in asthma can be accurately measured in the pulmonary function laboratory. Changes can be found in both the small (peripheral) as well as large (central) airways.

Histamine and slow reacting substance increase vascular permability and cause mucosal edema. These changes are primarily reflected in the *peripheral airways*. The most accurate way to measure small airway obstruction is by showing decreased density dependence of maximal flow rates. This is determined by measurement of flows while the patient is breathing air and helium.[4] Other tests which reflect obstruction of small airways include increased residual volume, increased closing volume, and diminished maximum midexpiratory flow. The last measure-

ment is the only one which could be obtained by routine spirometry. Recently, it has been suggested that small airway disease may be first manifested by complaints of exertional dyspnea. These changes are partly responsive to therapy with bronchodilators such as isoproterenol. Corticosteroids are probably also effective in reducing small airway edema.

Changes in larger airways are reflected in tests which measure resistance. This is most accurately determined by using a body plethysmograph. The practicing physician also can use spirometry to measure a reduced forced expiratory volume in 1 second to forced vital capacity ratio (FEV_1/FVC). Constriction of central airways may lead to cough. Wheezing then becomes a feature of more advanced disease. Increased large airway resistance seems to be more easily reversed by anticholinergic drugs (atropine) than by routine bronchodilators (isoproterenol).[4]

C. Staging of Asthma

Clinically, the end result of asthma is aberration in gas exchange, and measurement of arterial gases is of fundamental importance in determining the status of seriously ill patients. Asthma has been arbitrarily divided into four stages based upon these features (Fig 2). Each stage is defined by the pCO_2. This classification applies only to persons with reversible airway disease. The changes in the first two stages of asthma are based upon an increase in the gradient for oxygen between the alveoli and the pulmonary veins caused by uneven reductions in ventilation. In order to compensate for these changes, patients increase their ventilatory effort as reflected in reduced pCO_2. In stage 4, the oxygen gradient becomes so marked and the mechanics of ventilation so severely impaired that alveolar hypoventilation results in increased pCO_2.

In stages 1 and 2, measurements of pulmonary function are perhaps the most reliable indications of the clinical status. FEV_1 is probably the simplest measurement; peak flow is less reliable but can be measured by a portable instrument (Wright peak flow meter). In stages 3 and 4, pulmonary function studies are unreliable and blood gas levels should be used. In either of these last stages, respiratory failure and death can occur abruptly.

A person who continues to have moderate to severe asthma (stages 2, 3, and 4) in spite of vigorous therapy for several hours is often said to be in status asthmaticus.

Diagnostic Approach

A. Differential Diagnosis

Although wheezing is most frequently indicative of the diagnosis of asthma, many other considerations must be ruled out. A list of the major considerations is given in Fig 3. Conditions affecting both the upper and lower airway can mimic bronchial asthma.

B. Initiating Factors in Bronchial Asthma

Airways of the asthmatic patient are characteristically hyperresponsive to a host of different endogenous as well as exogenous stimuli. The presence of one factor in-

3. Conditions producing wheezing.

A. Upper and mid airway obstruction
   1. Tongue retraction
   2. Infection—diphtheria, retropharyngeal abcess
   3. Laryngeal edema or paralysis
   4. Hyperventilation
   5. Foreign body or tumor
   6. Vascular—congenital tracheal ring or aortic aneurysm
   7. Scarring—lye burns
   8. Trachael—bronchial anomalies
B. Lower airway obstruction
   1. Infection—croup, bronchitis, bronchiolitis, pneumonia, tuberculosis; due to immunodeficiency in early childhood if recurrent
   2. Chronic obstructive pulmonary disease
   3. Heart disease—left ventricular failure, mitral stenosis
   4. Pulmonary embolism
   5. Toxic vapors
   6. Restrictive lung disease—allergic alveolitis, sarcoid, scleroderma, et cetera
   7. Carcinoid tumors
   8. Cystic fibrosis—major differential in children
   9. Polyarteritis nodosa
   10. Compression by tumors or nodes
   11. Cholinergic drugs or propranolol intoxication
   12. Anaphylaxis

4 Factors which trigger asthmatic attacks.

A. Allergic—pollens, molds, animal danders, foods, drugs
B. Infectious—bacterial and viral
   1. Upper airway—sinusitis, "cold"
   2. Lower airway—bronchitis, pneumonia, et cetera
C. Irritant and physical factors
   1. Pollutants, toxic chemicals, smoke, et cetera
   2. Changes in temperature, humidity and barometric pressure
   3. Cough
D. Exercise
E. Emotional factors
F. Aspirin hypersensitivity
G. Cardiac failure
H. Adrenergic drug abuse

creases the susceptibility of the patient to other factors, so that it may be difficult to determine the predisposing features of any single asthma attack. Common factors to be considered are listed in Fig 4.

In children, the major trigger for asthmatic attacks probably is allergy. In adults, infections and environmental irritants assume important roles. Vigorous physical exercise usually will trigger an attack in all asthmatics who are in poor control. Although often implicated by both patients and physicians, emotional factors are probably the major factor in only a small percentage of asthmatics. Asthma which is initiated by stimulation of tracheal receptors (pollution, cold air, cough, etc) as well as by emotional factors probably is mediated through the vagus.

The incidence of aspirin sensitivity among asthmatics is less than 5%. Associated conditions include rhinitis and nasal polyps. Susceptible individuals often react to aspirin as well as other nonsteroidal antiinflammatory agents such as indomethacin (Indocin), ibuprofen (Motrin) and naproxen (Naprosyn).[5] Also, about 15% of patients sensitive to aspirin will react to tartrazine yellow dye #5, which is found in many processed foods. Aspirin hypersensitivity is probably not caused by immunological mechanisms, but may be related to interference with prostaglandin synthesis.

C. General Evaluation

The emphasis of the medical history in evaluating a patient with asthma should be upon determining factors which trigger acute bronchospasm (Fig 4), the course of attacks, and response to recent therapy. Those in status asthmaticus must be identified since immediate and vigorous therapy is indicated. Other reasonable causes of wheezing must be considered (Fig 3). The physician should identify patients with atypical histories so that proper studies can be done to rule out rare syndromes which mimic asthma.

Special emphasis should be placed upon vital signs, mental status, state of hydration, cyanosis, characteristics of respiration and breath sounds, cardiac function, and presence of peripheral edema or phlebitis.

The most frequent clinical sign and symptom of asthma is wheezing, although this factor may be absent during the mildest (as well as the severest) stages of the disease. Other clinical features which suggest an increased severity of airway obstruction include intercostal retraction, use of accessory muscles of respiration such as the sternocleidomastoids and pulsus paradoxus greater than 15 mm. These signs are more reliable indications of impending respiratory failure (stage 4) than breath sounds, pulse rate, and apprehension.

Routine laboratory studies for an adult include complete blood count, chest and sinus x-rays, and electrocardiogram. Sputum examination may suggest an allergic (many eosinophils) or infectious (neutrophils and bacteria) etiology.

Spirometry can be performed serially and gives some measure of the extent of obstruction (reduction in FEV_1/FVC), restriction (simultaneous reduction in both FEV_1 and FVC) as well as early changes in small airways (maximal mid-expiratory flow). Peak flow is determined with the Wright meter, but is quite dependent upon patient cooperation and may be normal during the milder stages of asthma. This instrument is the least expensive and most portable device for serial measurements of pulmonary function. Both spirometry and peak flow measurements become less reliable as asthma worsens. Extensive pulmonary studies are most useful when obtained during remission, and permit evaluation of the reversibility of disease.

Arterial blood gases are necessary to properly evaluate moderate to severe attacks of asthma, and should be considered if FEV_1 or peak flow are 50% of predicted. This

5. Therapy for acute asthma in adults.

Stage	Methyl Xanthine	Adrenergic	Steroid
1	Aminophylline, 200–400 mg po q6h*	Terbutaline, 2.5–5 mg po q6–8h	Usually none
2	Aminophylline, po as above or 250–500 mg iv (20 min) loading dose, and 250 mg iv q6h by continuous infusion*	Terbutaline, 0.25 mg sc, may repeat in 30 min, then q4–8h	Usually none
3, 4	Aminophylline, iv loading dose as above then 250 mg iv q4–6h*	Terbutaline as above	Prednisone or equivalent 10–50 mg po or iv q6–12h

*The dosage of aminophylline should be adjusted to achieve a serum theophylline level of 10–20 μg/ml. A peak level is obtained about two hours after an oral dose.

is the only reliable manner to identify those at risk of respiratory failure.

D. Immunological Evaluation

Asthmatic patients who (1) have seasonal exacerbations, (2) worsen after exposure to environmental factors, (3) have allergic rhinitis, or (4) are poorly controlled, should be evaluated for an allergic etiology. Skin testing remains the most uniformly accepted technique for demonstrating immediate hypersensitivity. Screening is often done by scratching or pricking the skin and applying a solution containing an antigen. A more sensitive and quantitative technique is intradermal injection of the antigen. In either case, the wheal and flare response is noted in 15 to 20 minutes. By using increasing concentrations, the degree of sensitivity to pollen, mold, house dust and animal dander antigens can be titrated. Food antigens are rarely useful. Testing with drugs is generally hazardous and controversial.

The radioallergosorbent test (RAST) recently has been introduced as a radioimmunoassay to replace skin testing. The RAST should be used in patients who are taking drugs which interfere with skin reactivity (antihistamines, adrenergic agents, aminophylline), those with extensive dermatological disorders, and in those where skin testing is otherwise inappropriate. A major advantage of the RAST is the absence of any patient risk. The major disadvantages of the RAST are high cost and lower sensitivity than skin testing.

Agammaglobulinemia, detected by immunoelectrophoresis, is rarely seen in adults but must be considered in those with persistent infection. Total IgE levels are elevated in allergic individuals, but this information has little clinical use because of the overlap between normal and allergic values. Release of histamine from blood basophils by allergens correlates quite well with the presence of disease, but is generally a research tool. Leukocyte cytotoxic testing is without value.

Therapy

The proper therapy of asthma has been the subject of several recent reviews.[6-8] There are a number of new drugs available, and the proper use of some older drugs has been reevaluated.

A. Avoidance of Allergens

Avoidance of known allergens is the *treatment of choice*. This is certainly possible in the case of foods, drugs, and animals but becomes more difficult when the sensitizing substance is a pollen, mold, or house dust. Meticulous attention to house cleaning, frequent replacement of filters and cleaning of heating and cooling systems, and avoidance of dustcatchers (drapes, carpet, venetian blinds, upholstered furniture) may be of value in reducing exposure to mold and house dust.

B. Methyl Xanthines

The value of aminophylline in treating asthma was recognized in Galveston in 1937. Because of toxicity, this drug lost favor subsequently. However, in recent years the therapeutic value of methyl xanthines has been rediscovered. Now these agents are considered the *drugs of choice* for almost *all asthmatics* during *all stages* of the disease. Methyl xanthines inhibit destruction of intracellular cyclic-AMP in the mast cell and basophil, and secondarily block the release of histamine and other mediators. Theophylline is the basic compound in most of these agents and has a half life in adults of 4.5 hours; however, since the range is from 1.5 to 9.5 hours, the

6. Adrenergic drugs used in the treatment of bronchial asthma.

Drug	Alpha	Beta-1	Beta-2	Dose	Route
Adrenalin	+	+	+	0.1–0.5 cc of 1:100 q30min times 3	Subcutaneous
Ephedrine	+	+	+	12.5–50 mg q6h	Oral
Isoproterenol	–	+	+	0.2–0.5 ml of 0.5% solution q2–6h	Aerosol
Isoetharine	–	±	+	0.2–0.5 ml of 1% solution q2–6h	Aerosol
Metaproterenol	–	±	+	10–20 mg q6h	Oral
				2 whiffs q6h	Aerosol
Terbutaline	–	–	+	2.5–5 mg q6–8h	Oral
				0.25 mg q4–8h	Subcutaneous
Carbuterol*	–	–	+		
Salbutamol*	–	–	+		
Fenoterol*	–	–	+		

*Not available in the United States except as an experimental drug.

individual dosage must be adjusted for all patients. Aminophylline, the most commonly used drug of this group, is the ethylene diamine salt of theophylline.

Aminophylline should be administered *intravenously* to all patients in stage 3 or 4 and in many in stage 2. A loading dose ranging from 5 to 9 mg/kg (not to exceed 500 mg) *over a period of 20 minutes* followed by a continuous infusion of 0.5 to 1.2 mg/kg/hour is administered. For adults already taking aminophylline, the maximal additional loading dose probably should be no more than 250 mg. (See Fig 5 for further guidelines.)

Theophylline should be given orally as soon as possible to all patients and maintained for several weeks following an acute attack. There is considerable evidence that chronic therapy with this drug will prevent recurrence. The efficacy of theophylline-containing compounds is probably related to the theophylline content. Generic aminophylline is widely available. The therapeutic range of oral aminophylline varies from 400 to 2,000 mg per day and should usually be taken approximately every six hours. Prolonged release preparations are under investigation and appear to be of value in reducing the frequency of administration.

Rectal absorption of theophylline is unpredictable. Suppositories and rectal solutions often induce proctitis, so that these preparations are less valuable than oral ones. Also, the use of combination tablets with theophylline, ephedrine, and tranquilizers is of disputed value.

The wide range of recommended oral and intravenous dosages for aminophylline is based upon the great variation in individual clearance rates. A few generalizations may be helpful. Children tolerate a higher dose (based on weight) than elderly persons. Hepatic disease or hepatic congestion due to heart failure are indications for a lower dose, since theophylline is metabolized by the liver. An "average" adult will tolerate and improve with 1.2 gm per day of aminophylline, but most authorities now recommend monitoring the dosage by theophylline blood levels.[9-12]

The therapeutic theophylline serum level is 10 to 20 μg/ml. When theophylline is administered orally, a peak level should be obtained about two hours after a dose. With continuous intravenous administration, blood theophylline will be stable a few hours after the loading dose. Symptoms of toxicity usually appear above 15 μg/ml, but may be seen at lower concentrations. The earliest symptoms are usually gastrointestinal (anorexia, nausea, vomiting, abdominal discomfort, and diarrhea) and neuromuscular (anxiety, tremor). These symptoms usually disappear or become tolerable with minor reductions in dosage. Severe toxicity is seen as drug concentrations progressively rise above 20 μg/ml and include atrial and ventricular arrhythmias, as well as convulsions.

C. Adrenergic Drugs

These agents are synergistic to the effects of methyl xanthines and are usually indicated in the therapy of asthmatics not well controlled by methyl xanthines alone. The mode of action of adrenergic drugs is increased synthesis of cyclic-AMP. There are three unique adrenergic receptors distributed in different tissues. Stimulation of alpha receptors chiefly induces vasoconstriction. Stimulation of beta-1 centers causes an increase in cardiac rate and contractility, and beta-2 receptors cause bronchodilatation. Different adrenergic drugs have considerable variation in the degree of stimulation of each receptor type (Fig 6).

My preference for treatment of acute asthma in stages 2 through 4 is subcutaneous adrenalin or terbutaline (Fig 5). The latter drug has advantages of being a pure beta-2 agent and longer duration of action. Administration of adrenergic drugs by intermittent positive pressure breathing for severe asthma is advocated by some authorities, but this route of administration is poorly tolerated by many patients. Oral administration of drugs should be started as soon as possible. Usually, a single adrenergic drug should be used at a time. There is evidence that side effects are less frequent with terbutaline, salbutamol and carbuterol than with metaproterenol or ephedrine; however, cardiovascular and neuromuscular symptoms are frequent with higher doses of any of these drugs.[13] Chronic use of aerosolized adrenergic drugs may be useful in managing milder asthmatics, but this form of therapy can be easily abused. Some studies have implicated aerosol abuse with an increase in the mortality of asthmatics.

A recent study[14] has shown that combined therapy with oral aminophylline and terbutaline may yield greater bronchodilatation with lower toxicity than therapy with either drug used alone in higher doses.

D. Corticosteroids

The mode of action of these drugs is not known, but seems to be a general reduction in inflammation. Steroids tend to potentiate the effects of bronchodilators (methyl xanthines and adrenergic drugs), but require six to eight

hours for onset of action. Steroids are indicated in patients with acute asthma in stages 3 and 4, and also in those chronically in stages 1 and 2 who are unresponsive to adequate doses of methyl xanthines and adrenergics for several days. For acute conditions, the recommended doses vary from 5 to 200 mg of prednisone or its equivalent per day and there are few studies which allow one to pick a proper dosage.[15] Intravenous administration is indicated in patients who cannot take oral drugs and the dosage usually should be given two to four times daily for acute asthma and then rapidly (for example, three to four days after remission) changed to a single morning oral dose. Prednisone is the ideal oral drug because of its short duration of action, low cost, and extensive record of use. I have found that continued administration of steroids for one to six weeks after an acute attack appears to reduce the frequency of relapse. Alternate-day administration often is possible after the first week.

The recent introduction of beclomethasone dipropionate (Vanceril) has revolutionized the therapy of severe asthmatics.[16] This drug is administered by inhalation and has the advantages of no significant suppression of adrenal function and no systemic steroid effect, when administered in doses with potent antiasthmatic effects. Beclomethasone is indicated in patients who require chronic steroid treatment or who would be candidates for systemic steroids based upon failure of adequate control by nonsteroid drugs. Some authorities advocate conversion of all patients taking oral steroids to beclomethasone because of its lower chronic toxicity.

Vanceril usually is instituted at 2 puffs three times a day and may be increased to 20 inhalations per day if necessary. Even higher doses have been used in some clinical studies.[17] Onset of action is seen in one or two days after beginning therapy, but full effects may not be seen for at least a week. Infrequent side effects include hoarseness as well as oral candidiasis; the incidence of this latter condition can be reduced by gargling after each administration. Symptomatic candidiasis usually responds to nystatin.

The major hazard of beclomethasone therapy is adrenal insufficiency in patients who have been on long-term treatment with oral steroids. Fatalities have occurred. Since beclomethasone has no systemic steroid effects, the doses of oral steroids must be tapered very slowly as beclomethasone is being started. The daily dose of prednisone usually can be reduced by approximately 2.5 mg every two to four weeks. Patients will continue to require supplemental corticosteroids during stress for months to years after discontinuation of oral steroids.

Vanceril is effective only when the drug reaches the small airways, therefore, it is of no value in acute asthma. Its primary use is to prevent asthmatic attacks. As acute asthma begins to clear, beclomethasone can be added to oral prednisone. Both drugs should probably be taken for at least two weeks. Thereafter, prednisone can be quickly tapered and discontinued if the patient has not been taking steroids. Patients on chronic Vanceril therapy who have a relapse may require a short course of systemic therapy with prednisone.

E. Cromolyn Sodium (Intal, Aarane)

This drug is of a unique class and has no place in the management of acute asthma. Instead, it appears to prevent recurrence of asthma by blocking the release of histamine and other substances from mast cells. It does not antagonize the end organ effects of any of the chemical mediators released from mast cells. Cromolyn is administered by inhalation of a powder using a "Spinhaler" in a dose of 20 mg four times a day. It is recommended that this dosage be given for at least four weeks to assess the response. The drug is not effective orally. Adverse reactions are infrequent.

Cromolyn is indicated in patients with extrinsic or exercise-induced asthma, which is uncontrolled by bronchodilators (methyl xanthines and adrenergics). It may also be beneficial in reducing the dosage of steroids required for control.

F. Anticholinergic Drugs

Atropine and other anticholinergic drugs were extensively used during the early part of this century to treat asthma. Because atropine tends to cause thickening of mucus, current regulations list asthma as a contraindication for this drug. In spite of this, evidence presented earlier suggests that atropine might be of considerable value in patients whose constriction principally involves the larger airways. This would be expected when asthma is triggered by emotional factors and by stimulation of tracheal receptors (irritants, temperature changes, and by stretch during coughing). An experimental drug, ipratropium bromide, has been shown effective when administered by inhalation to some asthmatics. This drug has advantages of causing less drying of bronchial secretions as well as fewer systemic symptoms. For the present, the use of

anticholinergic drugs in asthma is not recommended for routine use.

G. Other Therapeutic Considerations

Antibiotics are indicated with clear evidence of concomitant bacterial infection. Expectorants such as glyceryl guaiacolate and potassium iodide may have minor value. Hydration, intravenous or oral, is usually indicated in both acute and chronic asthma; however, excessive fluids can worsen pulmonary symptoms by inducing heart failure.

Sedatives have no role in the management of asthma. The anxiety induced by hypoxia is best treated with appropriate bronchodilators by a knowledgeable and sympathetic physician.

Oxygen is useful for patients with significant arterial unsaturation but must be used with caution in patients in stages 3 or 4. Oxygen can be administered by nasal cannula (2–4 liters per minute) or by Venturi masks which regulate inspired air to 24% or 28% oxygen. With elevated carbon dioxide pressure (>40), excessive oxygen can suppress respiratory drive and lead to further respiratory failure.

As respiratory failure progresses, assisted ventilation and endotracheal intubation must be considered. There are no widely accepted guidelines for when mechanical ventilation should be instituted, and this procedure has substantial morbidity and mortality.[18] Any patient in stage 4 asthma should receive intensive care with frequent determination of arterial blood gases. As the carbon dioxide pressure rises above 55, the indication for mechanical ventilation rises.

H. Immunotherapy

The parenteral injection of antigens was first reported to benefit allergic patients in 1911. There remains little doubt that this treatment form is effective in patients with pollen-induced rhinitis when the antigens are given to tolerance. This has been proven by several double blind studies. Use of this treatment form for patients with rhinitis caused by mold and dust is probably effective, but the efficacy of injections of mammalian proteins (eg, animal danders) has not been established. There have been fewer acceptable controlled studies for the treatment of asthma,[19] but most specialists would recommend immunotherapy for extrinsic asthma not controlled by bronchodilators or cromolyn sodium. The dose of antigens should generally be increased to the maximal tolerable concentration. Because of the inherent risk of anaphylaxis, medical supervision of injections is recommended. Treatment by injection of histamine, bacterial vaccines, or foods is not recommended.

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Trigeminal neuralgia: recent advances in management

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The ideal treatment for trigeminal neuralgia offers complete relief from the excruciating pain without producing neurological deficit. The apparent cause of most cases of trigeminal neuralgia is a compression-distortion phenomenon by anomalous arteries and/or veins upon the fifth cranial nerve root at its entry zone adjacent the pons in the posterior fossa. An operation designed to relieve this situation is described. The 15 patients noted in this report experienced relief of pain following surgery. In 14 of these patients, the compression-distortion was relieved by transposing the tortuous arteries or dividing the compressing veins, or both. Mild transient paresis of the fourth cranial nerve occurred in two patients, but there were no other sensory or motor deficits, and all patients were completely relieved of their pain.

The ideal treatment for trigeminal neuralgia has eluded physicians since the disorder was first described by the physician John Locke in 1677. The primary goal of treatment is to relieve pain without producing neurological deficit. Until now, only a rare glimpse of the etiological basis of tic douloureux was available to a few neurological investigators. Recently, with the use of the surgical microscope and microvascular neurosurgical techniques, an apparent cause of and appropriate treatment for trigeminal neuralgia has been described.

There have been a number of theories concerning the cause of trigeminal neuralgia. Astute observations by clinicians have added insight in light of recent findings. Walter Dandy,[1] using a posterior cranial fossa approach for surgical relief of pain in tic douloureux, demonstrated a reasonably consistent abnormality. Dandy noted and described abnormalities in the region of the fifth cranial nerve. The abnormalities,[2] usually vascular, were seen in almost 60% of his patients. Dandy never attempted to deal with these vascular anomalies by moving them away from the nerve, but rather avulsed the nerve to relieve the pain. Other neurosurgeons could not duplicate Dandy's low morbidity and mortality rates nor could they consistently confirm his findings. Dandy found tumors in the posterior fossa in juxtaposition to the fifth cranial nerve in 5.6% of his 215 cases, aneurysms of the basilar artery (2.8%), or cavernous angiomas (2.3%) pressing on the sensory root of the trigeminal nerve. In 30.7% of his cases, an artery was found compressing the nerve root. In another 14% of the patients, a branch of the petrosal vein crossed the sensory root or passed through it, separating its many fibers. Congenital malformations of the base of the skull were identified in 1% of his patients.

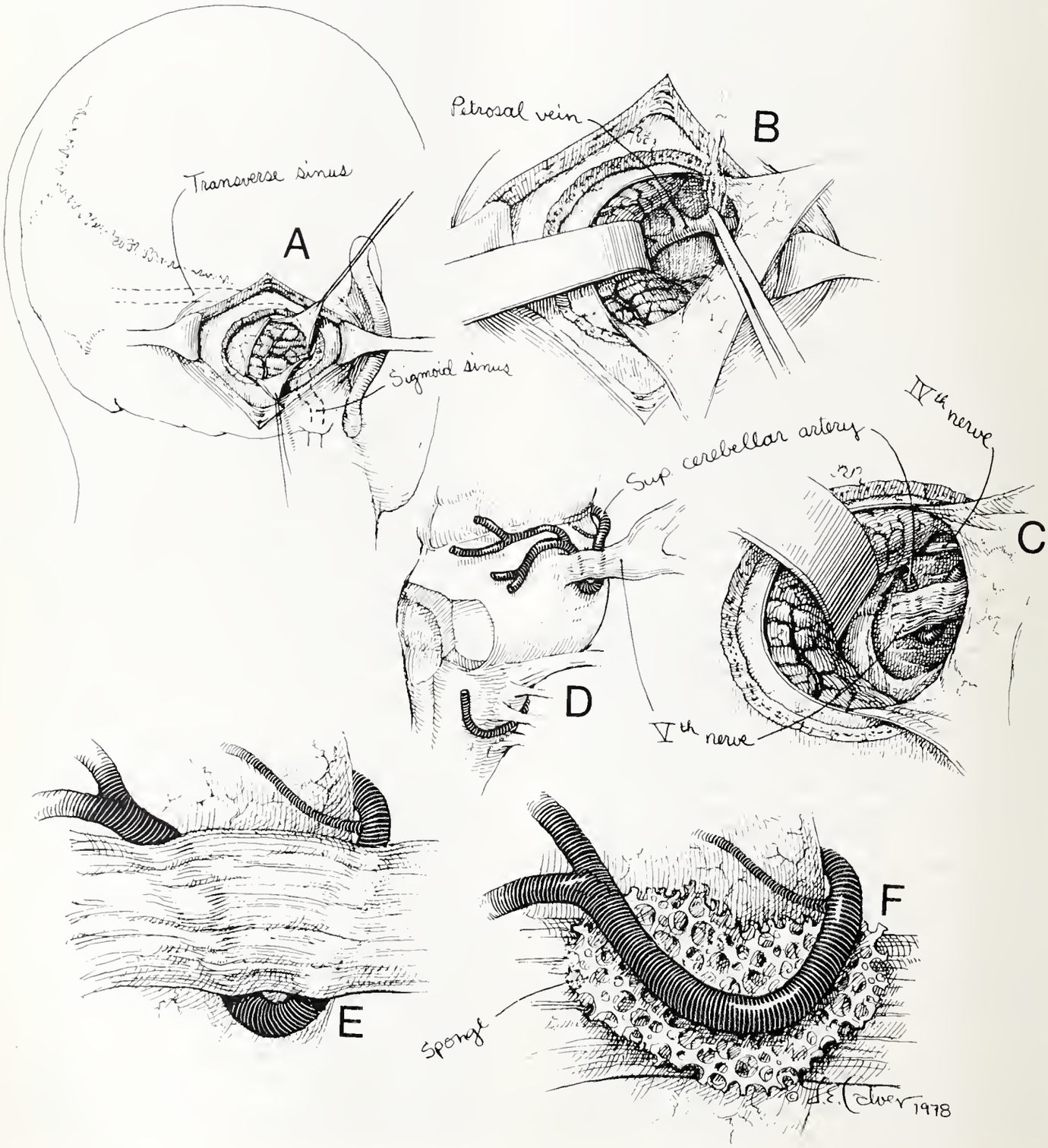
Other surgeons operating in the posterior fossa have noted some similar phenomena in cases of recurrent trigeminal neuralgia. Gardner[3] explored the posterior fossa in 18 patients. He found an arterial loop compressing the trigeminal nerve in six, an acoustic neuroma in two, basilar impression (congenital malformation of the base of the skull) in one, a basilar artery aneurysm in one, and an abnormal position of the pons resulting in distortion of the fifth cranial nerve in two cases. No explanation for trigeminal neuralgia could be identified in six of the 18 cases.

In reviewing 473 cases of posterior fossa craniotomy for trigeminal neuralgia between 1925 and 1945 at Johns Hopkins Hospital, specialists identified 24 tumors producing tic douloureux.[4] Eleven neurinomas, nine epidermoid cysts, and four meningiomas were seen. Direct compression of the trigeminal nerve root by an anomalous artery in the posterior cranial fossa (persistent trigeminal artery) was seen clearly and reported by Kempe and Smith.[5]

Until recently, surgical procedures for the relief of pain in trigeminal neuralgia were performed without a surgical microscope. Jannetta,[6] using the binocular surgical microscope, introduced an approach to the brain stem region of the trigeminal nerve. Where previously only gross lesions were discernible, the microscope enabled Jannetta to identify subtle abnormalities involving the fifth cranial nerve root entry zone. Excellent correlations between the long-known clinical description of signs and symptoms and neurophysiological principles were made with the operative findings. Jannetta described a compression-distortion phenomenon of the trigeminal nerve adjacent to the pons and usually by a tortuous loop of the superior cerebellar artery. This loop (Fig 1) would become trapped in the acute angle normally formed between the pons medially and the trigeminal nerve slightly laterally. The tortuous loop of vessel, not ordinarily found there, occupies this position as it lengthens with advancing age and secondary to atherosclerosis. On rare occasions only a vein is found to be compressing the nerve; more commonly, both arterial and venous structures exert the compression-distortion phenomenon.

Jannetta[7] proposed and carried out a microsurgical technique to remove the compression-distortion force without injuring the important arterial or neural structures. He has found it highly reliable in relieving pain without

1. Surgical views of compression-distortion phenomenon and treatment. A. Right retromastoid craniectomy with stellate dural opening. Bone is removed to visualize the transverse sinus and superior sigmoid sinus. B. The right petrosal vein is visualized, cauterized, and divided in the anterolateral aspect of the posterior fossa. C. Magnification view of fourth and fifth cranial nerve, superior cerebellar artery with cerebellum retracted. D. The redundant tortuous superior cerebellar artery impinges on the fifth cranial nerve, causing trigeminal neuralgia. E. High magnification of redundant tortuous superior cerebellar artery causing compression-distortion of the trigeminal nerve. F. High magnification. The superior cerebellar artery has been transposed to a posterior, superior, and lateral position in relation to the trigeminal nerve. The compression-distortion force has been relieved. A plastic sponge prosthesis holds the vessel in the transposed position and protects the nerve. (Reprinted with permission from Rosenberg RN, Ed: The Current Treatment of Neurological Diseases, Holliswood, NY, Spectrum Publications, Inc, 1978.)



producing neurological deficit. In some of his early cases there were postoperative recurrences of tic douloureux after initial relief of pain. Repeated surgery showed that the arterial loop, which had been transposed at the time of initial surgery, had dislodged from the new position and had regained its former position, causing compression-distortion of the trigeminal nerve. Repositioning and attachment of the arterial loop with a permanent prosthesis resulted in ultimate success.

The operative procedure[8] (Fig 1) consists of a small, retromastoid craniotomy situated to expose the junction of the transverse and sigmoid sinuses. These two venous channels are readily seen through the dura mater. After opening the dura mater and using the binocular operating microscope, a course is chosen over the superior lateral portion of the cerebellar hemisphere. The petrosal vein entering the petrosal sinus is coagulated and divided. With minimal retraction of the cerebellum, the pons, fourth and fifth cranial nerves, superior cerebellar artery, and related structures can be seen easily through the microscope. Meticulous microsurgical technique permits mobilization of the offending arteries and their transposition to an innocuous position. Compressing venous channels can be divided after microbipolar coagulation, or they can be transposed. The translocated arterial loops are held in their new position with a carefully fashioned permanent plastic prosthesis. The trigeminal nerve is cut only in cases where compression-distortion is not identified (as in cases of multiple sclerosis) or where transposition of the vessels is considered too dangerous.

Results

The results in this series correlate well with those of other authors[9] using Jannetta's approach. Fifteen patients with trigeminal neuralgia have been operated upon. In only one case, that of a 29-year-old woman believed to have multiple sclerosis, was the trigeminal nerve found to be free of compression-distortion. Her pain has been relieved by transection of the nerve in the posterior fossa. In each of the remaining 14 cases, compression-distortion was identified and relieved. Operative photographs were obtained through the microscope. The operative findings are listed in Fig 2. The patients enjoyed immediate, complete relief of their trigeminal neuralgia, except in two cases in which minor episodes of pain occurred on the second and third postoperative days. The pain has not returned since. The age range of these patients is from 29 to 70 years. No permanent complications have been noted (Fig 3). Transient fourth cranial nerve paresis, producing diplopia, was reported by two patients who had long, tortuous, firm, atherosclerotic superior cerebellar arteries. These arteries impinged on the fourth and fifth cranial nerves. Transposition of the artery resulted in a slight lengthening of the posterior fossa course of the fourth cranial nerve in these patients, both of whom recovered within a brief period. Trigeminal neuralgia has not recurred in any of the 15 patients during postoperative follow-ups which range from 3 to 24 months.

Discussion

In the past only a few cases of trigeminal neuralgia could be considered to be of the symptomatic variety. Most cases were classified as idiopathic unless an aneurysm, anomalous artery, or tumor could be found compressing the nerve. The use of the binocular surgical microscope permitted the identification of subtle changes of a compression-distortion phenomenon involving the fifth cranial nerve root entry zone in a group of patients who did not have aneurysms or tumors. The compression-distortion changes in these cases were due to arterial loops of atherosclerotic vessels, venous channels, or focal arachnoiditis. These causes of tic douloureux can be found alone or in combination. Relieving the compression-distortion force can result in relief from the pain of tic douloureux in appropriate patient candidates.

Most, if not all, cases of trigeminal neuralgia can be classified in the symptomatic category. Other causes of trigeminal neuralgia include multiple sclerosis and microinfarction. In both instances the responsible lesion lies in the pontine nerve root entry zone of the fifth cranial nerve. A post-herpetic-infection form of trigeminal neuralgia is uncommon. In these cases, a destructive neuro-

2. Posterior fossa. Microsurgical decompression of the fifth cranial nerve root entry zone.

Findings	No. Cases	Clinical Result
No compression-distortion	1	$V_{1,2,3}$ Tic controlled with complete transection of V; probable multiple sclerosis in 29-year-old female.
Arterial compression-distortion alone	6	(5) Immediate, complete pain relief (1) Two minor episodes on second postoperative day, then complete relief
Vein compression alone	1	Immediate complete pain relief
Arterial and venous compression-distortion	6	Immediate complete pain relief
Arachnoiditis (focal) and vein compression	1	Two minor tic episodes on second and third postoperative days, then complete relief

surgical procedure involving the sensory portion of the fifth cranial nerve yields relief from pain.

In choosing the surgical technique to relieve the excruciating pain of trigeminal neuralgia, the physician must consider many factors. Although it would seem ideal to offer a procedure which relieves the pain without producing facial numbness, it is not always advisable to do so. For patients of advanced age or severe debilitation, as well as those suffering from concomitant diseases which would preclude their undergoing a general anesthetic and/or craniotomy, there are other choices of treatment. The most reliable of the destructive procedures is the percutaneous thermocoagulation technique described by Sweet and Wespic.[10] It offers the possibility, unlike other destructive procedures, of preserving touch sensation while eliminating pain. This is particularly important when considering the treatment of first-division trigeminal neuralgia. The first-division (ophthalmic) of the fifth cranial nerve supplies the cornea. Preservation of touch sensation can obviate a corneal ulcer, a common occurrence when the cornea is rendered anesthetic. The risks of this percutaneous procedure as well as the results of treatment have been reviewed elsewhere.[11-13]

Conclusion

There is now a choice of modern procedures available to the patient suffering from trigeminal neuralgia, although the choice must be considered carefully. The microsurgical, posterior-fossa approach must not be regarded as a panacea. Although it has been demonstrated to be a reliable technique, it should be performed only by neurosurgeons who are highly skilled in microvascular neurosurgical techniques.

3. Posterior fossa Microsurgical decompression of the fifth cranial nerve root entry zone.

Postoperative Morbidity (15 Cases Treated)	
Transient, fourth cranial nerve paresis	2
Dysaesthesia in fifth cranial nerve distribution	0
Hypalgesia-analgesia	0
Motor paresis of fifth cranial nerve	0
Sixth cranial nerve paresis	0
Seventh cranial nerve paresis	0
Eighth cranial nerve injury (deafness)	0
Cerebellar dysfunction syndrome	0
Air embolism during surgery (Doppler used in all cases)	0

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Death related to informed consent

Bernard M. Patten, MD William Stump, MD

Recent changes in ethics have altered the patterns of medical practice and medical research in this country. The full impact of the new ethics on medicine has not yet been felt and probably will not be known for some time. Until we see the results of detailed, unbiased studies demonstrating favorable risk-benefit ratios, cost-effectiveness, and lack of significant adverse effects, we should not conclude that the new rules of ethics are necessary, needed, or beneficial. On the contrary, wisdom dictates that customs long established should not be changed for light and transient causes and some physicians have already pointed out possible adverse effects of the new rules. Ingelfinger,[1] for instance, has noted the alarming trend toward dilution and depreciation of the important by a proliferation of the trivial; patients and physicians, deluged with countless releases and consents, may lose sight of, and respect for, the important issues. The 1975 Office for Protection from Research Risks rule requiring extended informed consent to retain for research purposes an organ or fragment thereof removed either at autopsy or surgery—even when these procedures are done in accordance with customary medical practice—has no basis in the law[2] or support from the courts;[2] yet, it remains a requirement and continues to waste the time and energy of one of America's scarcer resources, the trained clinical investigator. The possibility exists that medicine and research may be overregulated[3] and their mission to serve humanity encumbered by the large number of regulations governing them.

The new type of fully informed consent, too, may have adverse effects. Not only is the cost of medical care increased because physicians spend more time explaining medical risks, but also there is danger that complete information may generate uncontrollable fear or irrational rejection of a needed treatment.

The following case reports illustrate possible adverse consequences caused by attempts to obtain fully informed consent.

Case Reports

Case 1: A 52-year-old welder was in excellent health until he was injured in a automobile collision. Following the accident, the patient developed pain in his lumbar region. Muscle relaxants, analgesics, bed rest, bed board, and heating pad gave no lasting relief.

The patient had been a welder for more than 17 years and was proud of his ability and his earnings (more than $17,000 yearly). His main concern, expressed to his physicians many times, was to return to work as soon as possible.

Neurological examination showed weakness of the extensors of the right big toe, decreased ankle jerk, decreased pin perception on the bottom of the right foot, and decreased vibratory sensation on the right big toe.

Roentgenograms of the spine showed six, instead of the normal five, lumbar vertebrae. The myelogram demonstrated extradural defects at L4-5 and L5-6, and nerve conduction tests showed prolongation of distal latency of the right tibial nerve to 8.2 msec, indicating a tarsal tunnel compression.

The plan was to release the tarsal tunnel first and then, if the patient still had symptoms, to do a lumbar laminectomy.

The day before the scheduled operation, the neurosurgeon tried to get truly informed consent by telling the patient that the operation might cause hemorrhage, infection, paralysis, or death. The patient signed himself out of the hospital and wrote the following note to his neurologist: "I decided not to have the operation as Dr. ----- told me it was very dangerous, and couldn't promise me if it would be successful and said there was always a possibility of being paralyzed."

At home, the patient continued to have pain and told his wife that there wasn't much for him to live for because the doctors couldn't help the back pain. One day when pain was particularly severe he put the muzzle of his shotgun in his mouth and pulled the trigger.

Case 2: A 54-year-old lawyer developed substernal crushing chest pain which increased with exercise and decreased with rest or nitroglycerine. Because the chest pains worsened during a three-month period, requiring more nitroglycerine but yielding less benefit, angiocardiograms were performed. They showed segmental occlusion of two coronary arteries. A bypass operation was proposed. In view of the patient's occupation, complete disclosure of risks and possible benefits of surgery and anesthesia was given during a two-hour conference with the patient. Subsequently, he refused surgery. One month later, he suffered a severe myocardial infarction and died en route to the hospital.

Comment

The neurosurgeon who tried to get informed consent from patient 1 had had, a few months before, a judgment en-

tered against him for the malpractice of a resident operating under his supervision. His earnest desire to comply with recent legal requirements in order to avoid further litigation probably explains his vivid description of the possible consequences of surgery which, after all, was only a release of the tarsal tunnel. The patient, a man with no medical experience, interpreted the explanation as a sign that the doctor didn't want to do the procedure and that there was no hope that the condition could be corrected. Extinction of hope, according to Beck,[4] is the single most important factor leading to suicide; therefore, the depression caused by physical pain and loss of income, associated with the seeming hopelessness of his situation, probably led to the patient's suicide.

In case 2 it is possible that, if the patient had been an ordinary citizen and not a malpractice lawyer, the minutiae of coronary surgery would not have been covered in the attempt to obtain informed consent, and the patient might have accepted the operation as most patients ordinarily do. The physicians may have erred, for obvious reasons, by overdisclosure of surgical risks so that the patient rejected the procedure which might have saved his life.

Before a drug is released on the market it must undergo pretesting to prove its effectiveness and safety. Similar pretesting should be applied to changes in traditional ethics, especially to the rapidly developing legal concept of informed consent, in order to prove the positive benefit of the changes and to avoid unforeseen adverse effects which can, as illustrated here, be as serious as the most serious side effect of any drug.

Moderation is necessary in deciding how much to tell patients to insure valid consents,[5] and most patients will be better served without overdisclosure—until courts specifically conclude to the contrary.[6]

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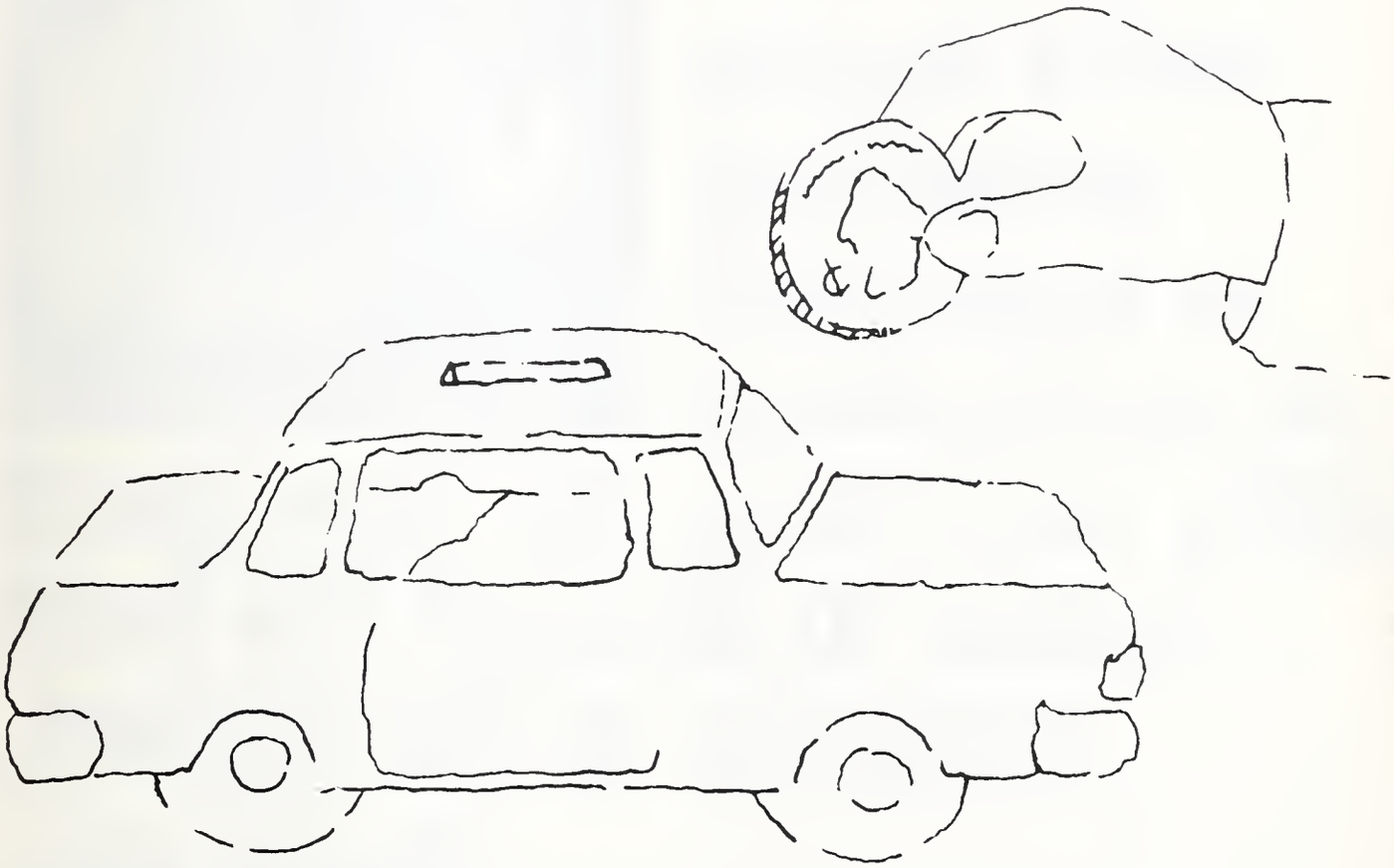

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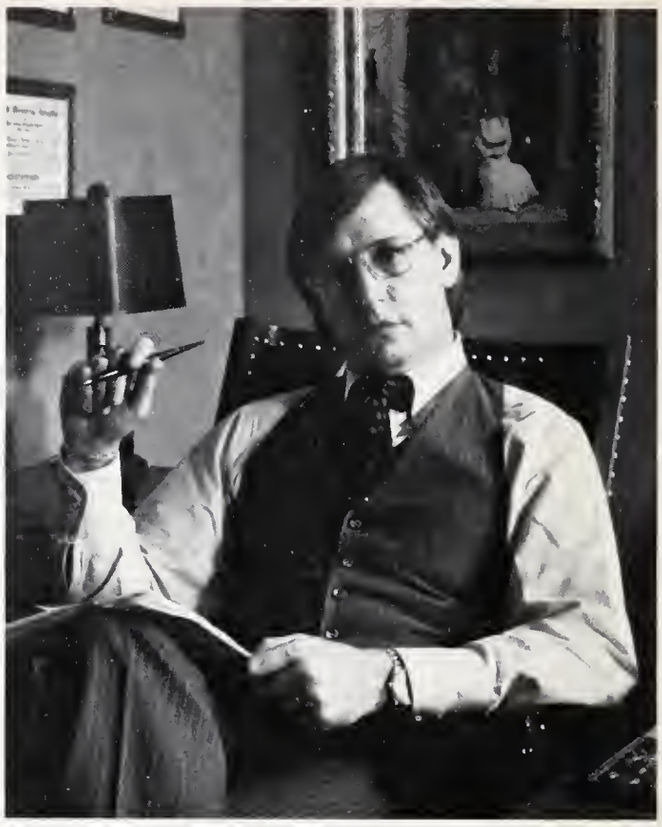

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Acetaminophen overdose and hepatic necrosis

Han-Seob Kim, MD Robert O. Dillman, MD

A patient with acetaminophen overdose followed by acute hepatic necrosis is described, and recent references on acetaminophen hepatotoxicity are cited. Histopathology of the liver at autopsy showed regenerative activity and severe centrilobular necrosis and collapse. Recognition of the potential danger of acetaminophen overdosage and its clinical manifestations is important for early initiation of therapeutic measures.

Acetaminophen

Acetaminophen (*N*-acetyl-*p*-aminophenol, Tylenol—McNeil; Datril—Bristol-Myers; Tempra—Mead Johnson; Liquiprin—Norcliff Thayer) is a nonprescription, over-the-counter drug popularized as a mild analgesic-antipyretic during the last quarter century. When taken in large amount, as in a suicidal attempt, acetaminophen has been associated with fatal hepatotoxicity.[1-10] Because of recent promotional advertising we anticipate increased incidence of accidental and intentional acetaminophen overdose. Accounts of acute acetaminophen hepatotoxicity have increased in the United States,[6,9,10-12] and we report another fatality due to acetaminophen overdose.

Case Report

A 63-year-old white woman was admitted to the Ben Taub General Hospital for jaundice and abnormal behavior. A month before admission, she had been hospitalized elsewhere for evaluation of hallucination and abdominal pain. Test results in that hospital were all within normal limits. Her altered mental status was believed to result from cerebrovascular disease, and she was discharged. A week later, she again complained of dizziness, and Valium (diazepam) was prescribed. Her symptoms were not ameliorated, however, and the Valium therapy was stopped. One week before admission to Ben Taub, she was seen at the hospital's emergency clinic. She complained of lower abdominal pain, but because no positive findings were elicited, acetaminophen was prescribed, and she was dismissed. During the three days prior to her admission at Ben Taub, the patient allegedly took 70 to 75 of the 325-mg tablets of Tylenol (22.75 to 24.38 gm acetaminophen) and was found unconscious. She had not received any blood transfusions, was not alcoholic, and had no history of liver disease. She was stuporous and disoriented; her blood pressure was 130/80 mm Hg, pulse rate 90/minute and regular, respirations 18 breaths/minute, and temperature 36.4 C. There was no evidence of head trauma, and the pupils were equal and reactive. The sclerae were icteric. The breath had the odor of fetor hepaticus. The liver was felt 10 cm below the right costochondral margin, but the spleen was not enlarged. The stool and nasogastric aspirate were guaiac-positive. There were large ecchymoses over the left thigh and dorsum of the feet and pitting edema in the legs. Examination of cranial nerve function showed no abnormalities; the patient responded to pain with withdrawal and snout reflex was positive. The chest x-ray was clear. The total serum bilirubin level on admission was 6.4 mg/dl; three days later it was 11.2 mg/dl with the direct component of 6.6 mg/dl. The prothrombin time was 39 seconds (control, 11 seconds); partial prothrombin time was 63 seconds (control, 33 seconds). Serum glutamic oxaloacetic transaminase (SGOT) and serum glutamic pyruvic transaminase (SGPT) levels were 460 and 360 IU, respectively, and lactic dehydrogenase (LDH) was 845 IU on the second day of hospitalization. Alkaline phosphatase was 128 IU. Hepatitis associated antigen (HAA) determined by the immunofluorescent method was negative on two occasions. After admission the patient was treated with fluids, multivitamins, and other supportive measures to control acute hepatic failure. Tube feedings were begun; sorbitol and neomycin were administered via nasogastric tube. The patient's mental and general status was unchanged until death. On the fourth hospital day she aspirated from the nasogastric tube and had a cardiorespiratory arrest. She was resuscitated, but died in the medical intensive care unit the same day.

Autopsy

At autopsy the patient was mildly icteric. Further examination revealed massive pulmonary edema and congestion and a flabby, yellowish 1,190-gm liver with prominent lobular marking. Microscopy of the liver showed severe diffuse centrilobular necrosis with condensation collapse of the reticular architecture in the necrotic centrilobular areas, bile stasis with canalicular plugging, and minimal chronic inflammatory infiltrates (Fig 1). Early signs of hepatic regeneration were present (Fig 2). On microscopy, the brain showed moderately increased numbers of astrocytes in the cortex and basal ganglia.

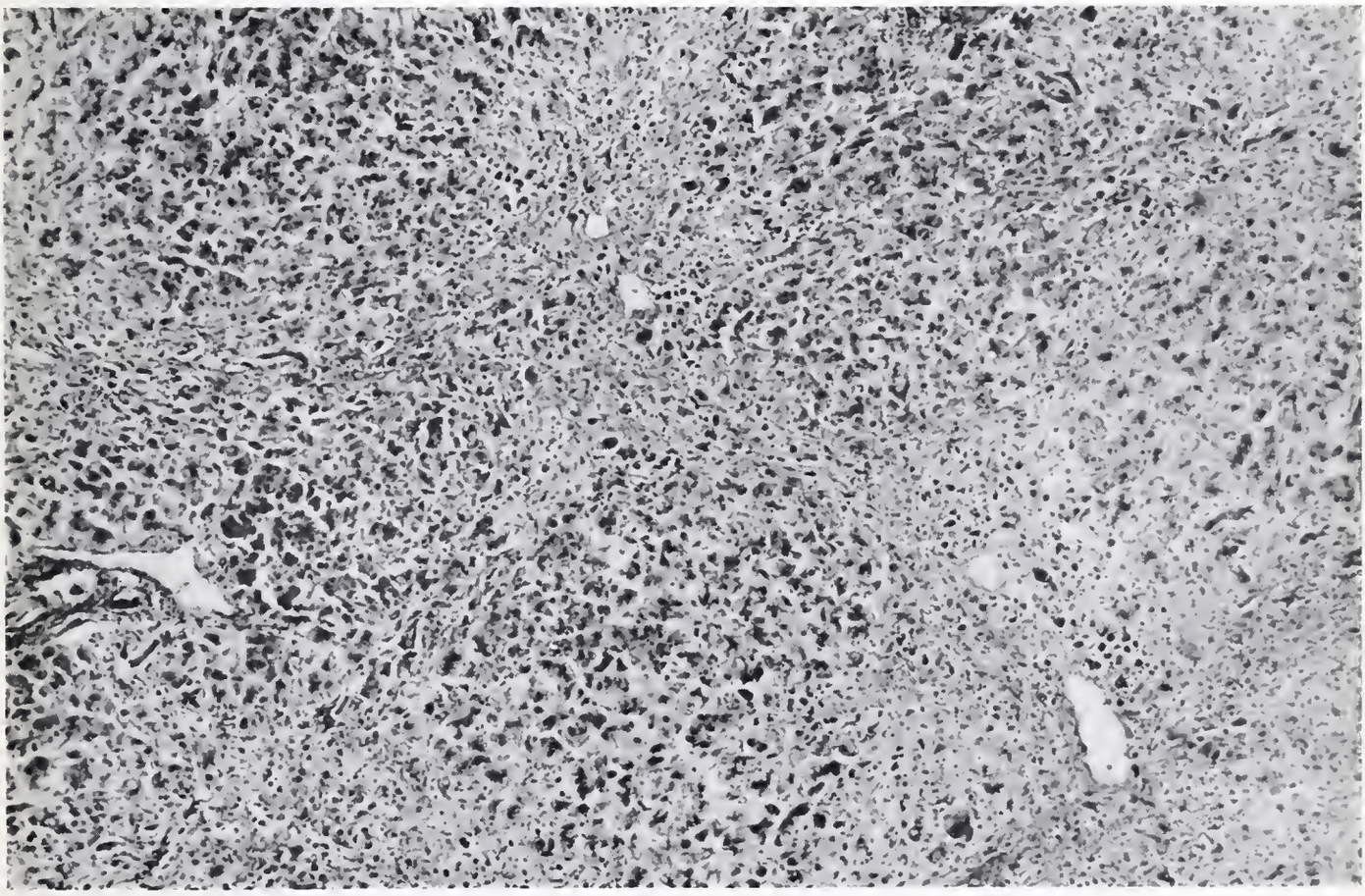
Discussion

Much of the increasing popularity of acetaminophen is

due to its lack of side effects of salicylates, ie, gastric erosion, irritation and bleeding, altered platelet aggregation, and variable effects on uric acid excretion.[13] However, in adults, severe hepatotoxicity may be found after a single ingestion of 10–15 gm of acetaminophen,[4] and a dose of more than 25 gm is usually fatal;[13] the maximum recommended dose is 2.6 gm per day.[14] There is little doubt that acetaminophen overdose was the cause of hepatic necrosis in our patient. In a characteristic case, nausea, vomiting, anorexia, and abdominal pain may appear within a few to 24 hours after ingestion.[4] Jaundice usually occurs within two to six days. Maximum liver damage, assessed by serum transaminase levels, becomes manifest between two and four days, and the extent of damage is proportional to the dose. The laboratory manifestations of hepatic injury are usually evident by the second day as increase in the SGOT, SGPT, LDH, and bilirubin values, although the alkaline phosphatase and albumin levels may remain normal. The prothrombin time is consistently prolonged in every patient.[5] If acetaminophen toxicity is suspected, the serum drug levels can be determined with relative ease.[15] Measurement of serum acetaminophen levels is a reliable index of the risk of toxic liver injury.[12] In England, where acetaminophen poisoning is more frequent, a bedside test kit is used. Active liver cell regeneration as seen in our case has been described only once in association with acetaminophen overdose,[16] although follow-up biopsies of the liver from nonfatal cases show return of normal hepatic architecture without accompanying cirrhosis.[7,16]

No specific treatment is available for acetaminophen poisoning. Gastric lavage should be used or emesis in-

1 Submassive centrilobular hepatic necrosis after acetaminophen overdosage. Portal spaces are spared but the centrilobular necrosis is extensive, forming "bridges" with adjacent necrotic areas around the central veins. The specimen shown here was stained with hematoxylin and eosin stain. X 100.



duced, but the rapid absorption of this drug limits the value of these measures. Since toxic intermediate metabolites of acetaminophen are partially neutralized by glutathione,[8,10] the use of cysteamine, which is better absorbed by the cells than glutathione, has been suggested. If, however, hepatic glutathione or other sulfhydryl source is depleted by overdose of acetaminophen, there is extensive arylation of hepatic macromolecules and subsequent cell death caused by the toxic intermediate metabolite.[18] Early cysteamine therapy together with effective supportive measures considerably reduces the morbidity and mortality of acetaminophen overdosage.[19] However, cysteamine is not readily available in the United States. *N*-acetyl cysteine (Mucomyst) has been suggested as an alternative antidote, and animal studies suggest it is more effective and less toxic than cysteamine.[10] Human trials utilizing Mucomyst are being conducted in this country. Nothing, however, is more important than physician awareness that excessive acetaminophen dosage can cause hepatic damage. There also have been recent reports[20,21] that chronic ingestion of excessive or even usual doses of acetaminophen can cause toxic hepatitis, a potential side effect that should be acknowledged by physicians and consumers.

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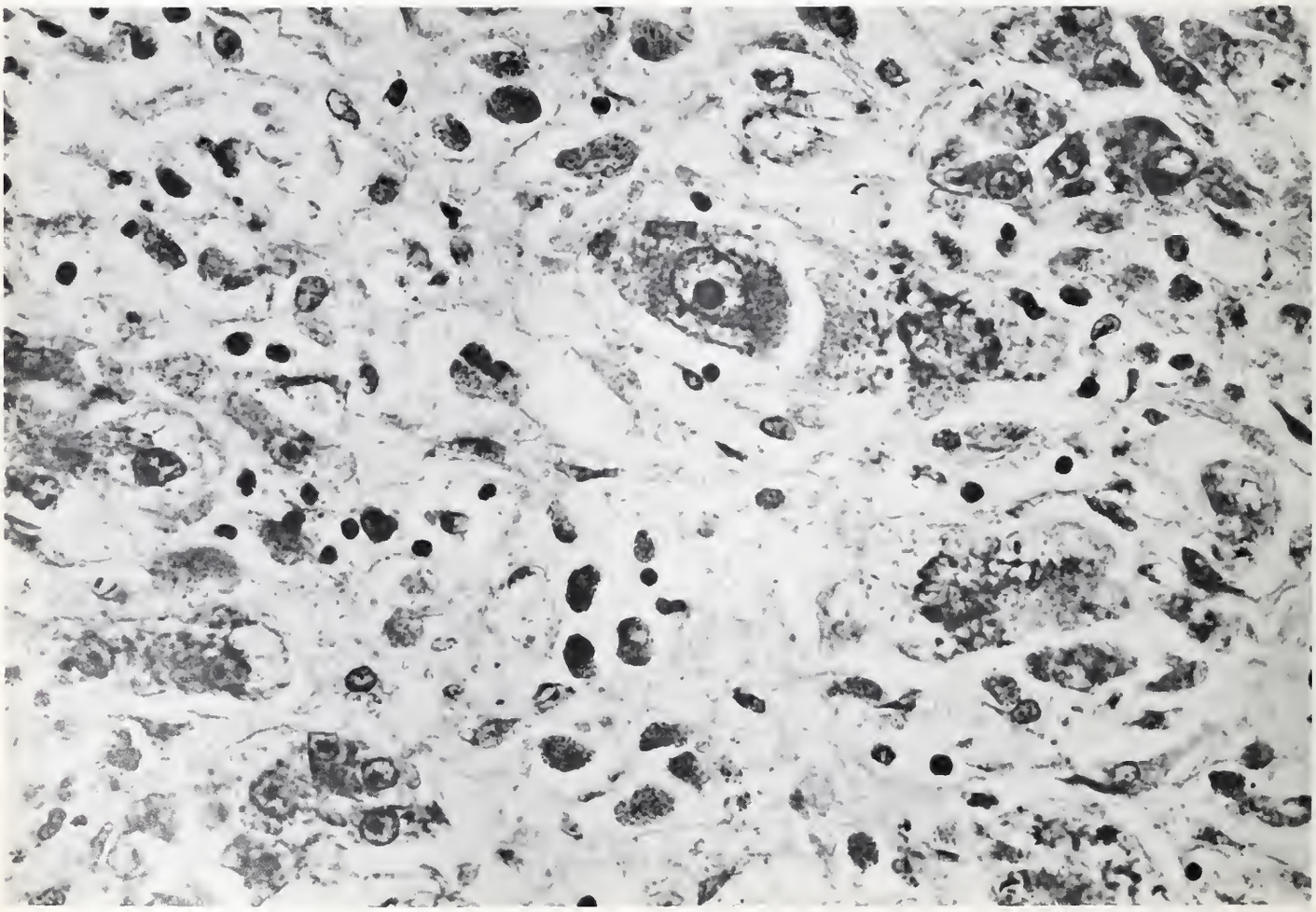
2 Photo shows regenerative activity, as well as degenerative change and necrosis of the liver, approximately six days after acetaminophen overdosage. Large hepatic cells with prominent nuclei and nucleoli, probably representing regenerative activity, can be seen at the margins of hepatic necrosis. One hepatocyte with double nuclei is visible in the left lower portion of the picture. In the necrotic area, lipofuscin-laden macrophages remain with few inflammatory cells. The specimen was treated with hematoxylin and eosin stain. X 100.



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Infectious mononucleosis—clinical and laboratory characteristics

P. R. Gilmer, Jr, MD

Infectious mononucleosis is an acute viral contagious disease that usually affects young adults. It presents various combinations of clinical, hematologic, and serologic manifestations. Generally, the disease is self-limited and benign, but a wide range of complications may occur, some of which can be fatal. Recently, an association of infectious mononucleosis with a familial lymphoproliferative syndrome has been described.

The term "infectious mononucleosis" was coined by Sprunt and Evans in their original description of the disease in 1920.[19] The first recorded case eventually proved to be the typical patient, a 23-year-old single white woman. The "large lymphocytes" were recognized, but Downey and McKinlay provided the classic description of abnormal lymphoid cells three years later.[6] The heterophile antibody and initial serologic tests were reported by Paul and Bunnel in 1932.[12] Henle and associates described the relationships of the Epstein-Barr virus of Burkitt's lymphoma to infectious mononucleosis in 1968.[16]

Clinical Features

Infectious mononucleosis occurs most often in young adults 15 to 25 years old, although reports of its occurrence in children ages 1 to 13, and in adults 40 to 78 years have been reported recently.[7, 9] There seems to be no evidence of sexual, racial, or seasonal predisposition. Generally, because of the special characteristics of its transmission, infectious mononucleosis is not contagious among usual close associates such as siblings, coworkers, or roommates of the same sex. Wintrobe described one mode of transmission as "kissing of more than filial intensity."[20] Occasionally, the sharing of beverage bottles has been implicated, and rarely, transmission occurs by blood transfusion. Venereal transmission of cytomegalovirus mononucleosis, which is similar clinically, recently has been reported.[2] Apparently, post-disease carriers rather than patients in the acute stage of the disease are responsible for new cases.

The clinical features, in decreasing order of frequency, are malaise, fever, cervical lymphadenopathy, pharyngitis, tonsillitis, headache, splenomegaly, hepatomegaly, and rash.[11] Less common symptoms may include chills, fatigue, cough, dysphagia, anorexia, and nausea. All may occur in various combinations during the course of the disease. Fever may be quite high at onset, but more often is moderate and recurrent. Temperature spikes later in the usual course suggest a complicating bacterial infection. The lymphadenopathy is generally symmetrical, with discrete, tender, nonfixed nodes palpable. The tonsils and posterior pharynx are severely inflamed, swollen, and exudative.[11]

Clinical complications include surgical emergencies such as splenic rupture and hemorrhage or acute airway obstruction resulting from extreme enlargement of pharyngeal lymphoid tissues. Hepatitis, myocarditis, and meningoencephalitis may occur and are related to infiltrates by atypical lymphocytes. Brain involvement may be fatal or may occur as the bizarre "Alice in Wonderland" syndrome.[3] Serious complications are *rare*, however, and probably occur in only 1% of infectious mononucleosis cases.

Hematologic Abnormalities

Quantitative and qualitative leukocyte abnormalities usually can be detected in the second week of illness and distinguish infectious mononucleosis from other, less specific, acute febrile illnesses. Thus, the astute laboratory observer may be the first to alert the physician to the most likely diagnosis.

The earliest hematologic manifestation is a toxic neutrophilic granulocytosis of very brief duration. This stage frequently is observed in the hematology laboratory, but generally is not described in the literature. It is soon followed by a transitory neutropenia before the typical lymphocytosis emerges. This is usually mild (10,000–20,000 WBC) but occasionally reaches leukemoid-reaction levels of 50,000–65,000, especially in children.[13] The differential count in adults is inverted, with lymphocytes representing 50% to 95% of the total and neutrophils correspondingly decreased.

The morphologic changes in the lymphocytes are the hematologic hallmark of this disease. The earliest descriptions were by Türk and Pappenheim, followed by Downey's classic work.[6] Variables in terminology have caused confusion for many years in the literature and in common usage. We generally use the term "atypical" lymphocytes, but "reactive," "stimulated," and "turned-on" lymphocytes also are used widely. Türk is remembered for the "irritation" cell. Pappenheim observed the nuclear lobulations and coined the term "leukocytoid" lymphocyte. Other self descriptive terms, "monocytoid" and "plasmacytoid" lymphocyte, have been used. "Viro-

cyte" also is used commonly, but it presumes—though not always accurately—viral involvement. For example, the post-pump or post-transfusion syndrome is characterized by atypical lymphocytosis thought to be caused by the rejection of transfused lymphocytes.

Downey[6] divided the atypical lymphocytes into three types, but recognized that they represented only stages in a spectrum and had no clinical or functional significance. In a later review, Wood and Frenkel listed five types (A-E), for descriptive purposes only.[21] In our laboratory, we occasionally refer to Downey type 1, 2, or 3 for ease of communication between observers, but these terms do not appear on patient reports. The most important point to recognize is that these are *mature* but *altered* lymphocytes, to be distinguished from monocytes on the one hand and from immature lymphocytes on the other.

Downey[6] distinguished the morphologic characteristics of maturation from differentiation and functional competence. The cell's maturity is read from the nuclear chromatin-parachromatin pattern, whereas functional activity may be related to nuclear shape and amount and appearance of the cytoplasm. The altered or atypical lymphocyte is characterized by mature, clumped nuclear chromatin and increased or abundant cytoplasm. In Downey's type 1, the nucleus may be oval, indented, or horseshoe-shaped (leukocytoid), with a large amount of usually very basophilic cytoplasm. In type 2, the nucleus remains mature, with the typical smudged appearance of heavy chromatin blending with dark, sometimes hypermature, parachromatin. In this cell, the cytoplasm is abundant and pale blue, with radial spokes of slightly basophilic material extending from the nucleus. These cells are almost always greatly indented by surrounding red blood cells.

Only the Downey type 3 lymphocyte has an immature, blast-type nucleus with visible nucleoli, but these cells are quite large and have abundant, deeply basophilic cytoplasm as opposed to the almost-absent cytoplasm of leukemic lymphoblasts. This distinction is most important. These large-bodied cells are benign, reactive, altered mature cells, even though the nucleus has a fine chromatin pattern and may contain nucleoli. Functionally, they are related to the immunoblast reported by Dameshek[4] and represent the circulating lymphocyte in an intermediate form during dedifferentiation, the process during which a resting lymphocyte undergoes blast transformation and emerges as a mature, immunologically competent T-lymphocyte or plasma cell.

The infectious mononucleosis viral agent is known, and, as in bacterially-induced neutrophilic leukocytosis, the proliferating cell line reverts to normal levels and morphology when the etiologic agent has been eliminated. This is in contrast to malignant myeloproliferative or lymphoproliferative disorders in which some unknown and continuing stimulus causes the aberrant cell line to proliferate uncontrollably. Morphologic clues to this distinction are present as described above and in the total smear pattern, or by "the company they keep."

The number of atypical lymphocytes is also important. A very few (0% to 3%) may be seen in normal healthy persons from time to time and probably represent subclinical or intercurrent viremias. Atypical lymphocytosis in the 5%-to-15% range may represent early infectious mononucleosis or may be caused by a variety of viral diseases such as infectious hepatitis, viral pneumonia, herpes, measles, and some types of influenza. Small numbers of atypical lymphocytes may also accompany lymphomas and leukemias. When levels of 20% to 25% *atypical* lymphocytes (usually more than 50% total lymphocytes) are reached, infectious mononucleosis is a strong likelihood.

Hematologic complications, like the clinical ones, are rare and occur in less than 1% of cases. These probably are related to basic hyperimmune reactions and may occur as severe thrombocytopenia,[10] neutropenia/agranulocytosis,[8, 15] or hemolytic anemia.[5] Such complications may respond to vigorous therapy with steroids, antibiotics, blood transfusions, and so on, or they may rarely lead to death.

Serologic Abnormalities

Two main types of serologic tests are available: the older tests for heterophilic antibodies and the more recent antibody tests, specific for Epstein-Barr virus.

Heterophilic antibodies react with antigens that are not responsible for their production. The cardiolipin antigen used in serologic tests for syphilis, for example, is not produced by exposure to *Treponema pallidum*. The first serologic test for infectious mononucleosis was developed in 1932 when Paul and Bunnel observed agglutination of sheep erythrocytes by high dilutions of sera from mononucleosis patients. The antigen thus derived had been described by Forssman, who found it in the tissues of various animals including the guinea pig. Normal persons may contain low (to 1:56) titers of heterophilic antibody, but patients with infectious mononucleosis pro-

duce very high titers. (The serologic test using the Forssman antigen was called the "presumptive" test by Davidsohn.[12])

It also was determined that serum of normal persons and patients with serum sickness (hepatitis MS-2) reacts with Forssman antigen and that the heterophile antibodies formed can be removed by absorption with guinea pig kidney. Conversely, beef erythrocytes consistently removed antibodies from the sera of infectious mononucleosis patients. This observation was the basis of Davidsohn's "differential" test.[12] Although highly reliable and specific, this test is obsolescent due to development of the Monospot test. The Monospot test uses fresh (nonformalinized) horse erythrocytes as the indicator cells and suspensions of guinea pig kidney and beef erythrocyte stroma as the differential absorption materials. Again, infectious mononucleosis sera agglutinate the horse red blood cells after the absorption with guinea pig kidney, but show very weak or no agglutination after absorption with beef erythrocyte stroma. This test has been considered highly reliable, although scattered reports of false-positive results have appeared.[9]

The Epstein-Barr virus specific antibody tests have evolved more recently, and their rationale is based upon the proposed etiology of infectious mononucleosis. The Epstein-Barr virus, which is related to the herpes organisms, was first isolated by Epstein in lymphocytic cell cultures of patients with Burkitt's lymphoma, a malignant tumor of lymphatic tissue. The sera of normal children and adults contain Epstein-Barr virus antibodies. Patients with infectious mononucleosis may develop a variety of Epstein-Barr virus antibodies that rise in titer at roughly the same time as heterophilic antibodies. These antibodies are distinctly different in reactivity and specificity and by immunoelectrophoretic separation. The heterophile group is an IgM. The early-rising viral capsid antigen (VCA) is an IgG. Another IgG antibody is directed to the diffuse component, and a third is termed Epstein-Barr virus-associated nuclear antigen. All of these tests involve indirect immunofluorescence, but recently complement fixation tests have been developed. At present, however, these specific anti-Epstein-Barr virus tests remain primarily for investigative use.[9]

The hematologic complications of hemolytic anemia, thrombocytopenia, and agranulocytosis also occur with acquired immunologic defects characterized by antibody formation. Recently, one congenital immunologic defect has been described as the X-linked recessive lymphoproliferative syndrome.[18] In a closely followed family in which this syndrome had been demonstrated, three fatal cases of infectious mononucleosis occurred in male cousins, and other viral diseases affected other male cousins. This family study had shed light on the cellular immune responses in infectious mononucleosis.

Purtilo and associates postulated that Epstein-Barr virus infects and causes proliferation of primarily B-lymphocytes.[18] The circulating atypical lymphocytes of infectious mononucleosis, however, are T-cells that do *not* contain Epstein-Barr virus (another strong point against calling these cells "virocytes"). These altered, atypical T-lymphocytes represent the immune surveillance system in action. Their mission is to eliminate the infected B-cell line. Experimental evidence has shown that T-cells are cytotoxic for lymphoid cell lines that have been transformed by Epstein-Barr virus.[17] In cases of X-linked recessive lymphoproliferative syndrome, T-cell function is impaired and the infected B cells may continue to proliferate—sometimes to lymphoma. Some patients have died of widespread infectious mononucleosis involving brain, heart, and other viscera. Another has died from overwhelming infection secondary to acquired agammaglobulinemia.

Conclusion

Infectious mononucleosis is a fascinating disease that may be regarded as a prototype lymphoproliferative syndrome, usually with a benign, reactive course. Occasionally, it may improvise almost endless variations of clinical, morphologic, and serologic themes.

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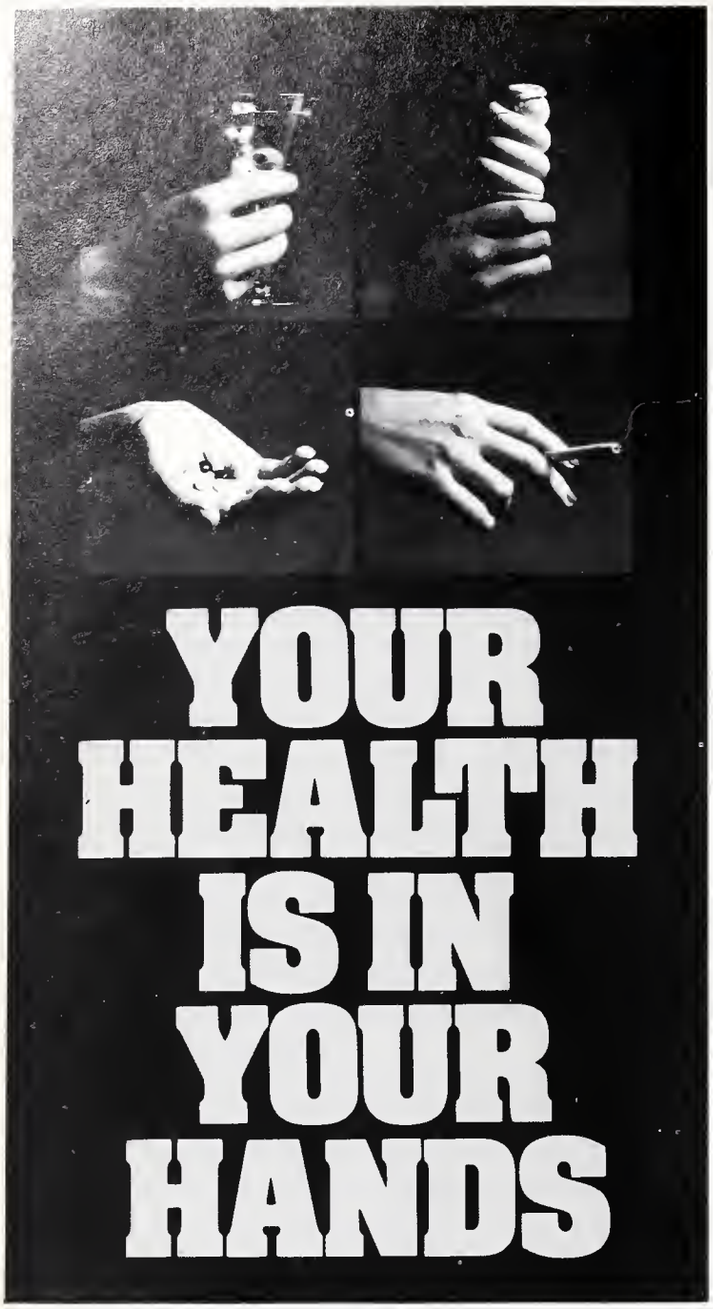

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P. B. Carroll, Jr

Perry Bromberg Carroll, Jr, MD, a member of Dallas County Medical Society, died Aug 7, 1978, as the result of an automobile accident. He was 41.

A native of Dallas, Dr Carroll received his undergraduate education from The University of Texas at Austin before returning to Dallas to attend UT Southwestern Medical School. After graduating in 1963, he held an internship at Cincinnati (Ohio) General Hospital and an anesthesiology residency at Parkland Memorial Hospital, Dallas. Following two years in the US Navy during the Vietnam War, Dr Carroll began his private practice in Dallas in 1968.

Dr Carroll is survived by his wife, Betty Hutcheson Carroll; sons, William Hutcheson Carroll and Perry Jonathan Carroll; daughter, Caroline Hinton Carroll; father, Perry B. Carroll, Sr; and sister, Mrs James A. Baker, all of Dallas.

N. W. Cowan

Noel Wayne Cowan, MD, 44, a Texarkana pediatrician, died Aug 4, 1978, as the result of an automobile accident. He was a member of Bowie County Medical Society.

Dr Cowan was a native of Lampasas, Tex, and was graduated from Howard Payne University, Brownwood, in 1962. He received his medical education at UT Medical Branch, graduating in 1967, and serving his internship and residency in pediatrics there during 1967–1970.

Survivors include his wife, Pansy Faith Cowan; son, Taylor Cowan; daughter, Amy Cowan, all of Texarkana; four brothers; and one sister.

R. M. Dufner

Romie Mark Dufner, MD, a long-time San Antonio physician, died Aug 31, 1978. Dr Dufner, 70, was a member of Bexar County Medical Society.

Born in Hallettsville, Tex, he attended Texas A&M University and received his medical degree from UT Medical Branch in 1935. He served an internship at Baptist Memorial Hospital in San Antonio.

Dr Dufner was one of the organizers of the Brooks Field National Bank, San Antonio, and served as a vice president and a member of the board of directors.

Survivors include his wife, Maurine Cude Dufner; son, Romie Mark Dufner, II; daughter, Suzanne Jeanette Ulmer; and five grandchildren, all of San Antonio.

F. J. Ernst

Frank John Ernst, MD, a Houston family practitioner, died Aug 10, 1978. He was 70.

Dr Ernst was born in Houston, attended the University of Houston, and received his medical degree from Baylor University College of Medicine in 1940. After graduation, he held an internship at Kansas City (Mo) General Hospital, and a residency at Methodist Hospital, Houston. He began his practice in Houston in 1944.

Dr Ernst is survived by his wife, Wilma Yelverton Ernst, Huffman, Tex; and sisters, Catherine Latham and Ruby Ernst, both of Houston.

G. W. Hamilton

George William Hamilton, MD, a Richardson surgeon, died Aug 12, 1978, at the age of 47. He was a member of Dallas County Medical Society.

A native of Greenwood, Miss, Dr Hamilton was graduated from the University of the South in Sewanee, Tenn, in 1952. Following graduation from Tulane University School of Medicine in 1956, he remained in New Orleans to serve an internship at Charity Hospital of Louisiana and a surgical residency at Ochsner Foundation Hospital. He served in the US Air Force during 1961–1963.

Survivors include his mother, Mrs Elisabeth S. Hamilton; and a sister, Frances Hamilton, both of Greenwood, Miss.

F. Jones

Franklin Jones, MD, Houston, died May 11, 1978. He was a member of Harris County Medical Society.

A native of Grenada, West Indies, Dr Jones, 61, was a 1949 graduate of Howard University, Washington, DC, and a 1954 graduate of Meharry Medical College, Nashville, Tenn. He served an internship at Kings County Hospital Center, Brooklyn, NY. He practiced in Appomattox, Va, and Danville, Va, before moving to Houston in 1957.

Dr Jones is survived by his wife, Una Jones; sons, Franklyn W. Jones, Reginald M. Jones, and Lawrence K. Jones; daughter, Cheryl Jones, all of Houston; two brothers; and two sisters.

P. M. Levin

Paul Michael Levin, MD, a Dallas neuropsychiatrist, died Aug 14, 1978. He was 72.

A native of Baltimore, Md, he was a 1926 graduate of

Johns Hopkins University and a 1930 graduate of the University of Rochester (NY) School of Medicine. His internship was at Strong Memorial Hospital of the University of Rochester; his residency was at the University of Chicago Hospitals and Clinics. After serving as an assistant in neurology at Johns Hopkins University from 1935 until 1937, he began his practice in Dallas.

Dr Levin is survived by his wife, Yetta Caplan Levin, Dallas; son, Richard Levin; daughters, Mrs George Needham and Mrs F. Stoll; and two grandsons.

H. B. Mindell

Harold Bear Mindell, MD, 58, a Fort Worth psychiatrist and member of Tarrant County Medical Society, died June 13, 1978.

A native of Sedalia, Mo, Dr Mindell attended the University of Illinois College of Medicine. Following graduation in 1944 he served an internship and surgical residency at St Louis City Hospital. He later held a psychiatric residency at North Shore Health Hospital in Winnetka, Ill.

Survivors include his son, Kenneth Mindell, Dallas; and two nieces.

M. S. Molloy

Maxwell Suttle Molloy, MD, 83, died Aug 4, 1978. Dr Molloy, an honorary member of Texas Medical Association, had practiced medicine in El Paso for 55 years.

A native of Corsicana, Tex, he was a graduate of The University of Texas at Austin and UT Medical Branch. He completed additional studies at John Sealy Hospital, Galveston; Bellevue Hospital Center, NY; and Tulane University. He served as a first lieutenant in World War I.

Surviving the physician are his wife, Allie DeWitt Molloy, El Paso; daughter, Mrs Jack Davis, Dallas; two stepdaughters; one stepson; and two grandchildren.

M. Velinsky

Morris Velinsky, MD, a long-time resident of Kilgore, died Aug 20, 1978. The family practitioner was a past secretary of Gregg County Medical Society.

A native of Shreveport, La, Dr Velinsky, 70, attended public schools there and was graduated from Centenary College. In 1931, he received his medical degree from Tulane University School of Medicine, New Orleans. He remained in New Orleans to serve an internship at Touro Infirmary. He moved to Kilgore in 1934 to begin his family practice.

Survivors include Dr Velinsky's brother, Paul Velinsky, Shreveport; sister, Mrs Bess Hodes, Deerfield Beach, Fla; stepdaughter, Christine Harder, Kilgore; stepsons, Earl Shanks, Tyler, and Ernest Shanks, Talihina, Okla; five grandchildren; and six great-grandchildren.

H. W. Withers

Henry William Withers, MD, 64, a member of Harris County Medical Society, died Aug 5, 1978, in Houston.

Dr Withers was a native and lifelong resident of Houston. He was a 1937 graduate of The University of Texas at Austin and a 1942 graduate of Long Island College of Medicine, Brooklyn, NY. His internship and residencies were at Jefferson Davis Hospital, Houston. He served in the US Navy during World War II.

Survivors include Dr Withers' wife, Frances Carl Withers, Houston; sons, Dr Ed H. Withers, Nashville, Tenn, and Henry W. Withers, III, John Mecom Withers, and George Herbert Withers, all of Houston; two sisters; and four grandchildren.

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Houston, 1908–1978

G. W. HAMILTON
Richardson, 1931–1978

F. JONES
Houston, 1917–1978

P. M. LEVIN
Dallas, 1906–1978

H. B. MINDELL
Fort Worth, 1920–1978

M.S. MOLLOY
El Paso, 1894–1978

M. VELINSKY
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H. W. WITHERS
Houston, 1913–1978

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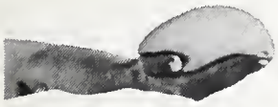

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PROMINENT POLITICAL AND MEDICAL LEADERS WILL REVIEW THE 1979 LEGISLATIVE YEAR WITH SPECIAL EMPHASIS ON MEDICAL LEGISLATION

9:00 a.m. to 4:30 p.m., Saturday, January 20. Luncheon served courtesy of TMA.
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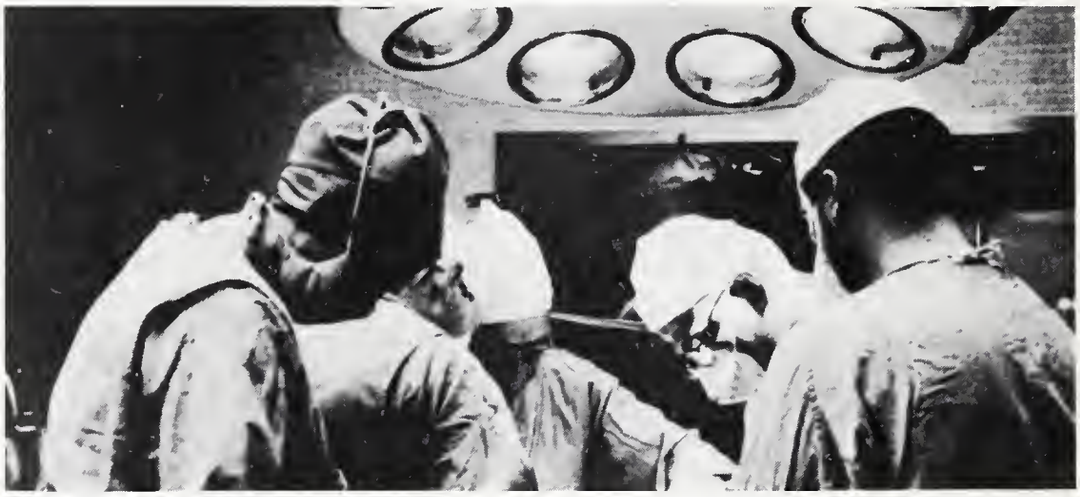

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WANTED ONE OR TWO BOARD ELIGIBLE FAMILY PRACTITIONERS to come into a growing multispecialty clinic. Many benefits that only a group practice can provide. Taylor Smith, MD, Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

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WANTED: INTERNIST, preferably with subspecialties in gastroenterology, pulmonary diseases, rheumatology or cardiology to join growing multispecialty clinic. Excellent facilities in new clinic building adjacent to new hospital. Contact Taylor Smith, MD, Malone and Hogan Clinic, 1501 West 11th Place, Big Spring, Texas 79720; telephone 915-267-6361.

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EMERGENCY DEPARTMENT GROUP, HOUSTON AREA, EXPANDING—choice of salary or fee-for-service with guarantee—malpractice paid—Call 713-861-7942 or write Greater Houston Emergency Physicians Association, 625 West 19th, Houston, Texas 77008.

GENERAL PRACTITIONER NEEDED: To work with general surgeon doing GP work. Excellent opportunity for a doctor desiring family practice work. May start with salary of $45,000 per year negotiable. City has population of 9,000 with trade area of 25,000 to 30,000. Contact Chris S. Cruzcosa, MD, 300 S. 5th Street, Carrizo Springs, Texas 78834, 512-876-5236.

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EMERGENCY DEPARTMENT DIRECTOR WANTED—Longview, Texas, population 60,000. Two hour drive east of Dallas. Progressive community with beautiful wooded geography and nearby lakes. Need career ACEP MD with ER and administrative experience. Malpractice insurance supplied. Fee for service compensation $72,000 for 20 shifts/month. Craig Bivins, Emergency Health Service Associates, 3600 Gaston Avenue, Suite 503, Dallas, Texas 75246; 214-823-6850.

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PHYSICIANS WANTED—progressive hospital in East Texas. Contact Paul Bennett, Administrator, Gladewater Municipal Hospital, 300 West Upshur, Gladewater, Texas 75647. Telephone 214-845-2281.

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SURGEON, ANESTHESIOLOGIST, CARDIOLOGIST: 19-doctor group in growing city of 70,000. New clinic building adjacent to new hospital. Excellent recreation area. $60,000 guaranteed, no limit, no buy-in, liberal fringes. Send CV to John Murphy, Administrator, West Texas Medical Associates, 3555 Knickerbocker Road, San Angelo, Texas 76901.

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RADIOLOGIST—TRAINED IN angiography, CT scanning, and ultrasound, an interest in nuclear medicine would be helpful, to fill opening in 5 man incorporated group with hospital and office practice in Central Texas. Compensation competitive. Please reply to Ad-847, TEXAS MEDICAL, 1801 North Lamar Blvd., Austin, Texas 78701.

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SUPERINTENDENT: Big Spring State Hospital. Physician, licensed to practice in Texas. Certified or board eligible in psychiatry and must possess administrative ability. Base salary is $40,600/yr. with house and utilities provided. Up to $3,000 additional salary may be granted by the Commissioner of TDMHMR and an additional $1,000 compensation for board certification. Fringe benefits include vacation, sick leave, and usual state benefits including a retirement program. Legal protection provided by state law. Applications must include a professional resume and must list no less than three references. Applications must be addressed to: John J. Kavanagh, MD, Commissioner, Texas Department of Mental Health and Mental Retardation, Box 12668, Capitol Station, Austin, Texas 78711.

SUPERINTENDENT: Rusk State Hospital. Physician, licensed to practice in Texas. Certified or board eligible in psychiatry and must possess administrative ability. Base salary is $40,600/yr. with house and utilities provided. Up to $3,000 additional salary may be granted by the Commissioner of TDMHMR and an additional $1,000 compensation for board certification. Fringe benefits include vacation, sick leave, and usual state benefits including a retirement program. Legal protection provided by state law. Applications must include a professional resume and must list not less than three references. Applications must be addressed to: John J. Kavanagh, MD, Commissioner, Texas Department of Mental Health and Mental Retardation, Box 12668, Capitol Station, Austin, Texas 78711.

ORTHOPEDIC SURGEON WANTED, board eligible or board certified, to join two other orthopedic surgeons in 28 physician multispecialty group in East Texas. Salary first year, equal compensation second year, associate third year. Two open staff hospitals, Population 58,000; large and small industry, forestry and agricultural community. Personal interviews may be arranged. For additional information, contact AD-851, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

PSYCHIATRIC RESIDENCY—Terrell State Hospital affiliated with the University of Texas Southwestern Medical School, with Texas license first and second year—$19,000, third year—$20,000, fourth year—$21,000. Without Texas license—$17,600. Accredited for JCAH. Contact Luis M. Cowley, MD, Superintendent, Terrell State Hospital, P.O. Box 70, Terrell, Texas 75160. Approved internship preferred.

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POSITIONS AVAILABLE FOR PSYCHIATRIST and for general practitioner, salary range to $46,600, based on experience and training. Fringe benefits include liability protection under state law. Texas license required. Contact A. Samaniego, MD, Clinical Director, Rio Grande State Center for Mental Health and Mental Retardation, P.O. Box 2668, Harlingen, Texas 78550. 512-423-5077. EOE M/F.

ORTHOPEDIC SURGEON WANTED TO JOIN an expense sharing group in a north Central Texas community of 100,000. Must be at least board eligible. For additional information contact AD-861, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

FAMILY/GENERAL PRACTICE, INTERNAL MEDICINE—Seek the addition of a family, general practitioner, and internist to join 14 doctor multispecialty clinic located in North Dallas. Guaranteed salary first year with no buy-in agreement. The clinic is located within the new Medical City Dallas complex, which encompasses a 380 bed hospital and leasing space for approximately three hundred physicians. Excellent cultural and educational opportunities. If interested, please mail CV. c/o Jay K. Lockhart, Administrator, Southwest Clinic Association, 7777 Forest Lane, Dallas, Texas 75230.

PREVENTIVE MEDICINE. Do stress conditioning and set up exercise and diet programs tailored to executive needs. Prime Houston location. We have other openings in family practice, orthopedics, OB-GYN, internal medicine and research. Contact Marilyn Blaker, MEDEX, 5805 Richmond, Houston, Texas 77057, call collect 713-789-1550.

ESTABLISHED DEPARTMENT OF FAMILY MEDICINE at The University of Texas Medical Branch in Galveston, Texas invites applications for faculty positions. Duties include graduate and undergraduate teaching, patient care, administration and research, depending on experience and interest. Rank and salary commensurate with qualifications. Send CV and three references by January 1, 1979 to: Barbara L. Thompson, MD, Department of Family Medicine, The University of Texas Medical Branch, Substation No. 1, P.O. Box 146, Galveston, Texas 77550. UTMB is an equal opportunity/affirmative action employer.

THE ARMY MEDICAL DEPARTMENT is offering a number of positions in several hospitals in the State of Texas. The emphasis is placed on primary care, but all specialties will be considered. Starting salary is $32,000 and up plus fringe benefits, depending on qualifications and experience. For additional information, please contact. CPT George R. Collins, 1100 Commerce Street, Room 9C23, Dallas, Texas 75242. Call collect 214-749-1505/1506.

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PHYSICIAN NEEDED for new blood and plasma center in Lubbock, Texas. Part-time or full-time. Send resume to P. O. Box 1417, Opelousas, Louisiana or telephone 318-948-3044.

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PEDIATRICIAN WANTED to join two others in established 18-doctor group. New clinic building adjacent to new hospital in growing city of 70,000. $40,000 guarantee, no buy-in, liberal fringes. Send CV to Administrator, 3555 Knickerbocker Road, San Angelo, Texas 76901.

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BOARD ELIGIBLE GENERAL AND VASCULAR SURGEON from University of Mass. Medical School Residency Program is seeking group or hospital based practice. Please write to: Vijay A. Mehta, MD, 14 D Brandywine, Shrewsbury, MA 01545; phone 617-791-4621.

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MEDICAL BUILDING in San Antonio for sale or lease. 2000 sq. ft. medical clinic in 7 year old building at 1827 Bandera Road. Suitable for all primary care physicians and possibly for two physicians at the same time. Leasing agreement at 30¢ per sq. ft., to include utilities and janitorial service. For information call Irwin Kurtz, MD, 512-696-4233 or Ron Bento, 512-826-3251.

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FAMILY PRACTICE FOR SALE in large South Texas city. Fully equipped large beautiful office in affluent area of town. Good specialty backup in 3 large hospitals available. Call group available. Contact Ad-855, TEXAS MEDICINE, 1801 North Lamar Blvd., Austin, Texas 78701.

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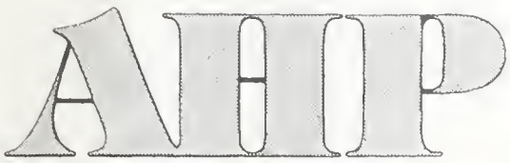

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LETTERS

Report posttransfusion hepatitis to blood bank

Dear Ms Baker:

Many physicians are unaware that they can play an important role in the reduction of posttransfusion hepatitis by reporting all suspected cases to the blood bank or transfusion service that provided blood or components to the patient within two weeks to six months before the onset of hepatitis. The blood bank can then evaluate the donors involved to see if they are capable of transmitting hepatitis.

With the advent of an all volunteer blood donor population and universal use of third generation tests for hepatitis B (serum hepatitis), the incidence of hepatitis B following blood transfusion has declined. However, posttransfusion hepatitis remains a serious problem. Currently, it is estimated that 80% of posttransfusion hepatitis is due to the non-A non-B virus for which there is no commercially available test. Even the tests available for screening donors for hepatitis B are imperfect, detecting only about 70% of carriers.

Thus, a system of evaluating blood donors implicated in cases of suspected posttransfusion hepatitis becomes an important means of identifying donors who are capable of causing disease and removing them from the blood donor pool.

Sincerely,

Ethel Patten, MD; Director, UTMB Blood Bank, Galveston.

EDITORIALS

"What's New" offers commentary on recent advances in medicine

Elsewhere in this issue (page 29) is a new feature, "What's New in Internal Medicine: Diabetes Update," by William P. Deiss, MD, Professor and Chairman, Department of Internal Medicine, UTMB, Galveston. "What's New" is designed to bring to the readers of *Texas Medicine* authoritative comments on recent advances in medical understanding, diagnosis and treatment. Where controversy exists, the contributor is expected to express a personal preference. Emphasis is on clarity of communication while the use of references and theoretical discussion is restricted to the essentials.

It is important to the editors and the Scientific Publication Committee that we hear from you, the reader, concerning the value of this new feature to you and your practice.

C. W. Daeschner, MD, Galveston, Chairman, Scientific Publication Committee.

A tribute to Texas biologists and biochemists

The Texas laboratories of early- and mid-20th century researchers seem strangely distant today when their histories emerge for occasional tribute. For some scientists, the passage through Texas was brief, but their basic research here was essential to the answers they found. Others called Texas home, and here it was their accomplishments were recognized.

There was turn-of-the-century researcher John T. Patterson, PhD, whose contributions to embryology and genetics at The University of Texas in Austin gained international recognition as early as 1925. During his career, Patterson taught thousands of students, one of them the first UT PhD degree recipient, many of them future physicians.

There was Theophilus Shickel Painter, PhD, a newcomer to UT and Texas in 1919, who developed staining techniques to determine gene locations in fruit fly chromosomes and whose work was essential to genetic research that claimed a 1962 Nobel Prize for Crick, Watson, and Wilkins. From 1947 to 1952, Painter was president of The University of Texas at Austin.

Herman J. Muller, PhD, yet another Patterson associate, left his native New York in 1915 for a faculty position at Rice Institute and later at UT. His discovery of x-ray mutagenicity won for him the 1946 Nobel Prize in Physiology or Medicine—after he had moved from Texas.

Working with orthopedic surgery resident Tom O. Shindler, MD, at The University of Texas Medical Branch, Charles Mark Pomerat, MD, proved Dr George N. Egger's contention that pressure at a fracture site is essential to healing. Isolating a small square of a rat's parietal bone, Pomerat and Shindler secured one edge, with pins and rubber bands, to another bone segment. The three remaining sides of the square produced scar tissue. The fastened side fused.

In 1919, 28-year-old parasitologist Asa C. Chandler, PhD, joined the Rice Institute faculty, an association he would maintain for more than 25 years. Chandler interrupted his Rice sojourn for three years of research in Calcutta and a one-year Fulbright scholarship, but after his return to Texas, he remained at Rice until his death.

The prodigious Chandler encouraged the use of copper sulfate to control snail-borne pathogenic flukes, a procedure that was used for a quarter century. Much of Chandler's work was devoted to parasite-host metabolic interactions, and as early as the 1920s he warned that intestinal roundworms in dogs could infest humans.

Chandler was elected president of the American Society of Parasitologists in 1945, the American Microscopical Society in 1950, and the American Society of Tropical Medicine and Hygiene in 1956. En route to the VI International Congresses on Tropical Medicine and Malaria in 1958, Chandler died. He had been named one of five honorary presidents of the Congresses.

Roger John Williams, PhD, came to Texas in 1939, shortly after he discovered pantothenic acid. Within a year, he was named director of the newly established Clayton Foundation Biochemical Institute. He was director of the institute until 1963.

Williams and colleagues determined the structure and achieved synthesis of pantothenic acid, developed microbiological assay methods for riboflavin, pantothenic acid, biotin, nicotinic acid, pyridoxine, inositol, thiamine, folic acid, and vitamin B_{12}. He discovered metabolically active forms of vitamin B_6 and the vitamin's mode of metabolic function, and he identified glutamine as an agent capable of reducing alcohol consumption in rats and some humans.

As the 20th century edged into its third quarter, serendipity visited Dr Pomerat's UTMB laboratory. We are fortunate his research team was there to greet it. It was there, in 1954, that a laboratory worker accidentally treated a human cell culture with distilled water—instead of saline solution—revealing to Dr Patterson's student, T. C. Hsu, PhD, the first known view of individual human chromosomes. Weeks of investigation by Hsu led to the cause of the cell culture reaction.

In 1977, Roger Guillemin, MD, PhD, and colleagues received the Nobel Prize for isolating the thyrotropic releasing factor. Although he had moved from Texas when the prize was awarded, Guillemin had conducted the research at Baylor College of Medicine during the late 1950s and early 1960s.

Today's scientists, armed with indelible contributions by their predecessors, continue their advance into the medical unknown. The combination of their talent, facilities and a driving determination to understand basic life processes has given today's physician and patient hope for extended health. The accelerated progress of the late 20th century promises the same for their children.

Acknowledgements

The author wishes to recognize colleagues, journals, and professors for providing essential information, advice, and encouragement for the preparation of this editorial.

Donald Duncan, PhD, Galveston.

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